

NSW MINE SAFETY REVIEW

**Report to
The Hon Kerry Hickey MP
Minister for Mineral Resources**

**by
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February 2005

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Note:

Appendices 10-12 and 14-21 are adapted from the submission of the Department of Primary Industries (DPI).

Appendix 6 contains key point summaries of each written submission received, prepared by the Review Secretariat. The summaries should be read in conjunction with the submissions' Recommendations listed in Appendices 22-25. Authors of the original submissions were not given the opportunity to comment on these summaries.

EXECUTIVE SUMMARY

The Review

The Review has taken place in the context of considerable change to the management of mine safety since the 1997 Mine Safety Review and the 1998 Gretley Inquiry Report. In that period, the safety performance of the New South Wales mining industry has shown significant improvement.

The major change has involved a “journey” from a prescriptive regulatory environment to a risk-based management system approach. The journey is consistent with similar changes in mining and other industries throughout Australia. To reach the journey’s goal requires cooperation and collaboration from all stakeholders in the industry. Indeed the Minister indicated that the Review was the next step in the Government’s aim to achieve zero mine fatalities and serious injuries by examining what has been accomplished since the last major review and inquiry and to examine what could be improved further.

The terms of reference of this Review reflect the key issues that will seriously impact on the future health and safety performance in the mining industry if not seriously addressed by the industry stakeholders.

Critical Issues

A critical related issue is the completion and implementation of regulations under the 2002 & 2004 Mine Safety Acts (yet to be proclaimed) for the coal, metalliferous and extractive sectors. These regulations are still not in force because of the failure by the major parties to reach agreement on fundamental issues such as hours of work and contractor management.

These issues alone, while serious in themselves, are symptomatic of systemic negative issues in the industry which are impeding further progress in advancing mine safety in New South Wales.

The Review has identified two industry systemic issues which potentially affect most areas of effective occupational health and safety management in New South Wales mines.

Mistrust/Disconnect

Firstly, there is debilitating *mistrust* between the members of the tripartite process at all levels.

Secondly, there is a *disconnect* between the intentions of both DPI and the companies, on the one hand, to reduce risk through systems and management plans and, on the other, the reality of risk encountered at the “coal face”.

This *mistrust* and *disconnect* must be acknowledged and addressed by all parties. The need to address these critical issues underpins the major recommendations of the Review.

The Review makes it clear that there can be no second-class safety systems and that compliance with the risk-based management process must, in the interests of the health and safety of men and women involved in mining, be ensured at every level.

To help deal with the *mistrust issue*, the Review has recommended a strengthened, committed, focussed and resourced Mine Safety Advisory Council, as well as a Board of Inquiry to review the enforcement policies which, at present, are somewhat vague and uncertain.

As to the *disconnect issue*, the Review stresses the importance of effectively checking (monitoring, observing, inspecting and auditing), so as to ensure that risk-based management systems and plans are not only in place, but are actually implemented.

The Review emphasises that a risk-based management system/plan that is not adequately implemented may be more dangerous than having no system/plan at all.

Mine Site Consultation

The Review also suggests strong measures to ensure effective mine site consultation between all parties at all levels. The mining industry needs an effective approach towards establishing a process of optimising compliance based on best practice. Strengthening consultation at all stages of the process is essential in this regard.

Health Issues

The Review was concerned that health issues did not seem to receive the same degree of attention as safety issues and recommends that the DPI be responsible for similar approaches to the administration of health and enforcement of occupational health issues as it is for safety issues.

Hours and Fatigue

Generally, the stakeholders were helpful in participating in the review process. However, the Review was disappointed that despite strong expression of concern by major parties on the issues of hours and fatigue, that the Review received little concrete assistance from those parties on practical solutions to this issue.

Finally

Finally, the Review, whilst noting the tendency of stakeholders to blame each other for shortcomings, considers that there is a need for employers, unions and the DPI to seek ways of promoting a more cooperative approach to OH&S based on trust and commitment and involving consultation at all levels of the workforce and management.

It is regrettable that the present industrial relations climate makes this difficult, but with life and limb at risk, it should not be impossible, given a reasonable modicum of goodwill.

INTRODUCTION

The New South Wales Minister for Mineral Resources, the Hon Kerry Hickey MP, announced on 28 September 2004 the appointment of former Premier, the Hon Neville Wran AC QC, to head a new Mine Safety Review. Ms Jan McClelland (former Director-General of the Department of Education and Training) was appointed to the Review to assist Mr Wran.

From a shortlist of potential independent expert advisors, and after considering the recommendations of the Construction, Forestry, Mining & Energy Union (CFMEU) and the NSW Minerals Council in this regard, Mr Wran and Ms McClelland recommended three expert advisors to the Minister to form a reference panel for the Review. These recommendations were subsequently accepted by the Minister, and the panel comprised the following:

- Professor Jim Joy (Professor of Mining Safety and Director of the Minerals Industry Safety and Health Centre at the University of Queensland);
- Professor Michael Quinlan (School of Organisation and Management, University of NSW); and
- Mr Peter Wilkinson (Project Manager, National Offshore Petroleum Safety Authority Implementation Team).

The Review sought written submissions from relevant parties as a major component of the Review.

The panel of expert advisors individually and jointly provided comment and analysis relevant to the Review, particularly drawing on their respective areas of expertise and experience. This included comparative information and insights on matters from other industries and jurisdictions that enhanced the review process.

The Minister indicated that this Review was the next step in the Government's aim to achieve zero mine fatalities and serious injuries, by examining what the Government had accomplished since the last major review and inquiry were conducted in the late 1990's, and to examine what could be further improved.

A further stimulus to this Review was the fact that the last three fatalities in the New South Wales mining industry were contract workers, and the present Review's Terms of Reference reflect the concern by many stakeholders with the safety performance of contractors.

In 1996, the State Government commissioned an independent mine safety review coordinated by ACIL Economics & Policy Pty Ltd. Shortly after the review started, the Gretley tragedy occurred, in which four miners lost their lives. The State

Government also commissioned the Gretley judicial inquiry, headed by Justice James Staunton. All 87 recommendations contained in both reports (44 from the Mine Safety Review; 43 from the Gretley Inquiry Report) were accepted by the State Government.

Some of the major achievements following the acceptance of these recommendations include:

- New legislation – the *Coal Mine Health and Safety Act 2002* and the *Mine Health and Safety Act 2004*, which have been passed by Parliament but are yet to be enacted;
- An overall improvement in safety performance shown in the major indicators of fatalities, serious injuries and lost time frequency rates;
- The establishment of the Mine Safety Advisory Council as the peak advisory group, including industry and employee representatives to help oversee the reform process;
- Information via website safety alerts and the quarterly newsletter *NSW Mine Safety Update*;
- Increased number of safety assessments at mine sites, including reviews, audits and inspections (30 percent unannounced);
- Major improvements in electrical and mechanical engineering standards;
- The Small Mine Campaign, which covered 308 mines, and development of the Small Mine Safety Management Kit; and
- The Lightning Ridge Mines Safety Course, with no fatalities recorded in the last seven years since its inception, compared with an average of one fatality a year for the preceding 10 years.

In announcing this Review, the Minister commented that whilst these achievements had proved effective, there was still much to be done. The Minister further stated that he saw the Review as a chance to provide a fresh, independent and innovative perspective on mine safety.

A summary of the employment and production value of the NSW mining industry is contained in Appendix 1 and an overview analysis of the recent safety performance of the industry comprises Appendix 2. The current role of the Department of Primary Industries (DPI) and its strategic directions in regard to mine safety are contained in Appendix 3 while Appendix 4 summarises the structure and functions of the Mine Safety branch within DPI and the role of inspectors.

2. TERMS OF REFERENCE

Terms of Reference for the Review are as follows:

- (1) *Review the progress with the implementation of the recommendations of the Mine Safety Review and the Gretley Report.*
- (2) *Consider whether any change in the implementation of these recommendations is required.*
- (3) *Review the operation of the Mine Safety Advisory Council and the supporting consultative process.*
- (4) *Review and make recommendations in relation to:*
 - (a) *the safety performance of contractors*
 - (b) *the broad practice of hours of work and fatigue management; in the New South Wales mining industry*
- (5) *Review the enforcement policy and the processes used by the Department to implement the policy.*
- (6) *Consider ways and make recommendations as to how the New South Wales mining industry safety culture could be improved.*

The Terms of Reference of the Review were constrained to allow the Review to be completed in a relatively short time frame, and to avoid reopening discussion of issues already covered in the extensive process of consultation for the new legislation. Nevertheless, it was always appreciated that the time frame of the Review limited the depth and breadth of the Review.

3. CONDUCT OF THE REVIEW

The Review was supported in its conduct and report preparation by the Department of Primary Industries (DPI). Mr Garth Holmes (Manager, Minerals Development) and Mr Jon Hawke (formerly Assistant Director, Mining Titles) were seconded to the Review, to provide executive support to Mr Wran and be the key contact points in DPI for accessing other expert advice and assistance from within DPI as required. The seconded officers were deliberately chosen as being outside of the Mine Safety area in DPI, so as to ensure the Review process operated independently of the mine safety activities within DPI.

The Department of Primary Industries submitted a formal submission to the Inquiry.

At the commencement of the Review, Mr Wran and Ms McClelland were briefed extensively on the current situation with respect to safety operational and legislative development matters by senior officers responsible for managing mine safety within DPI.

Mr Wran and Ms McClelland have conducted 5 site visits during the Review. These comprised visits to an open cut coal mine (Rio Tinto Hunter Valley Operations), an underground coal mine (Xstrata Beltana), an underground metalliferous (gold) mine (Newcrest Cadia/Ridgeway), a sand quarry (Rocla Calga Sands) and a basalt quarry (Hanson Kulnura). Discussions were held with both management and workforce representatives at all these operations.

The Review was advertised in The Australian, Sydney Morning Herald, Newcastle Herald and Illawarra Mercury on 13 October 2004 (Appendix 5). Letters were also written to major stakeholders on 8 October 2004. The original closing date for submissions was extended until 3 December 2004, following requests from some submitters to the Review.

Formal presentations to the Review have been made by the Department of Primary Industries (DPI), NSW Minerals Council (NSWMC) and the Construction Forestry Mining & Energy Union (CFMEU). Mr Wran and Ms McClelland have met with Professor Dennis Else, current Chair of the Mine Safety Advisory Committee. The Review has also met with union (CFMEU) officials and delegates from the two main coal mining districts and with officials and delegates from the Australian Workers Union (AWU).

In all, the Review spoke to over 80 individuals, including mining company senior executives and representatives, mine managers, mineworker supervisors, mineworkers, union representatives (from both head office and site delegates, including check inspectors), and DPI representatives (including officers from the mine safety Inspectorate).

The Review has received a considerable volume of information, from companies, industry peak bodies and trade unions. There are some common themes and perhaps the one area where there is unanimity between industry and workforce submissions is the need for change. Evaluating the quality or evidential basis of the information is problematic however. For the most part, the information has not been “tested.” In other words, it has not been given on oath, nor subject to cross-examination and has not been made available to other parties who are affected. This necessarily constrains the reliance which can be put on the information.

There are undoubtedly good measures being introduced into the mining industry safety framework, but there is an underlying problem of lack of trust between the parties. The Review has perceived a realisation or acceptance by the major parties that further improvements are required and that there is some willingness to make changes for the better. The Review determined early in its process that, given its limited resources and timeframe, it was not capable of examining issues to the detailed extent necessary to make conclusive recommendations in all situations. The recommendations of the Review tend to point in general directions, often subject to more assessment in a more relaxed timeframe. Others are directed towards encouraging the respective parties to embrace change and cooperatively move forward.

Submissions received

Twenty-one (21) submissions have been received by the Review, categorised below as Government, union/employee groups, mineral industry associations, mining companies, mining contractors or independent. The CFMEU package has been counted as one submission.

Government: Department of Primary Industries
DPI Inspectors of Coal Mines

Union/Employee Groups: CFMEU - National Office
- South Western District
- Northern District
-15 individual members

AWU
Colliery Officials Association
APESMA - Colliery Staff Division
Mine Managers Association of Australia

Mineral Industry:
Associations NSW Minerals Council
 Minerals Council of Australia
 Australian Mines and Metals Association

Mining Companies: Hanson
 Illawarra Coal (BHP Billiton)
 Centennial Coal
 Xstrata Coal
 Rio Tinto Coal
 Drayton (Anglo Coal)
 Newcrest

Mining Contractors: Roche Mining
 Thiess

Independent: Mr Bruce Ham
 Professor Jim Galvin

Key point summaries of all the submissions received are contained in Appendix 6.

Appendices 7-14 are relevant to Terms of Reference 1 and 2, Appendix 15 for Terms of Reference 3, Appendices 16-17 for Terms of Reference 4, Appendices 18, 19(a)&19(b) for Terms of Reference 5 and Appendices 20-21 for Terms of Reference 6.

Appendices 22 - 25 contain the recommendations to the Review of the NSW Minerals Council, and CFMEU, DPI and other submissions respectively (noting that not all submissions made recommendations in a format that could be readily extracted).

4. POSITIONS OF MAJOR PARTIES

The positions adopted by the submissions in relation to the Terms of Reference can be broadly grouped into three categories:

1. The corporate mining industry, comprising the mineral industry associations, the mining companies, and the mining contractors. The Mine Managers Association of Australia share many of the views of the above bodies.
2. The unions, comprising the CFMEU and the AWU. Also included in this category are the Colliery Officials Association and APESMA-Colliery Staff Division submissions, although their views tend to lie between the CFMEU/AWU and the corporate mining industry positions.
3. The Department of Primary Industries, representing the Government in being the principal agency in providing legislation and regulation of occupational health and safety (OH&S) in the mining industry.

Corporate Mining Industry

The NSW Minerals Council in its submission acknowledges safety as a number one priority and expresses a commitment to working towards zero fatalities and serious injuries. There has been an improvement in the overall level of safety throughout the operations of major companies across the State in recent years.

Important cultural change in the mining industry has in part evolved in response to two important reports – the 1997 Mine Safety Review and the Gretley Report on the inquiry into the Gretley coal mine disaster of November 1996.

The corporate mining industry position, as articulated by the NSW Minerals Council, is that the industry safety performance is good when compared with other countries and other Australian jurisdictions; it has improved over time and that further improvement requires change on the part of trade unions and government.

The NSW Minerals Council presented statistics, both of fatality and “lost time injury” rates for NSW and compared them internationally and interstate. These showed a better performance compared with overseas experience and interstate plus a general improvement over time. The Minerals Council acknowledged there were weaknesses in the data and recommended that the DPI collect better quality data.

The NSW Minerals Council submission made a large number of recommendations for improvement to mine safety (see Appendix 22).

The NSW corporate mining industry through the Minerals Council submission has identified three priority areas to deliver accelerated change:

- The safety of contractors
- Hours of work and fatigue management
- Processes for tripartite discussion and resolution of safety issues and safety innovation delivery

The NSW Minerals Council and the former Department of Mineral Resources (now DPI) have developed contractor management guidelines and fatigue management guidelines, not currently supported by the unions.

The corporate mining industry submits that the union proposition that hours of work should be fixed - implying thereby that hours worked up to a statutory limit are inherently safe and without associated fatigue risks, and that hours worked above a specified number are inherently unsafe - is misguided.

The corporate mining industry notes that research indicates that fatigue is not solely a function of hours of work averaged over a week. It remains convinced that it is most appropriate for fatigue to be managed within an holistic approach to “fitness for work” and that all risks associated with fitness for work should be included in an organisation’s fatigue management plan. The corporate mining industry has major concerns with the argument by some stakeholders that a cap on working hours, or a “one size fits all” approach, is that which is required to manage fatigue. The corporate mining industry advocates that a prescriptive limitation on working hours is:

- Not required due to the awareness and successful management by industry of the fatigue risks associated with working hours arrangements;
- Impractical due to the different roster systems in place in the industry for different requirements; and
- Inconsistent with a risk management approach to fatigue.

The corporate mining industry claims that the interests of people who work in the minerals industry will be best served by consultative mechanisms which:

- Ensure that contested matters are decided quickly and equitably.

- Ensure that all tripartite bodies – corporate mining industry, government and trade unions – are committed to solutions to safety and health issues.

The corporate mining industry submits that improvement of the consultative framework should include provisions for independent mediation.

Since the former Department of Mineral Resources (now DPI) introduced its enforcement policy in 1999, the corporate mining industry has been critical of a number of enforcement actions. The corporate mining industry is strongly of the view that policies and processes that achieve voluntary compliance and a sense of trust in the regulator are needed if DPI enforcement actions are to have a beneficial long-term impact on safety.

The corporate mining industry has also called for changes in attitude from the trade union movement. For example, they feel that the trade unions have been negative towards the issue of “behavioural safety,” because trade unions had instructed their members not to take part in some training on this topic.

The corporate mining industry is also strongly in support of a more systematic approach to safety, in the context of greater emphasis on the adoption of a more risk based, safety management approach to safety. The corporate mining industry suggests that the development of the risk management approach is not strong enough in the new legislative framework. While the new legislation moves to greater emphasis on risk management and outlines a hierarchy of controls, the corporate mining industry considers that proposed regulations are still in many respects prescriptive. The corporate mining industry claims that the legislative framework is now somewhat confusing, allowing conflict between risk management and the traditional prescriptive controls.

Unions

The CFMEU is the principal union representing coal mine workers in NSW. The AWU represents many metalliferous mine workers and extractive industry workers in NSW.

The unions submit that the Review should report to the Minister that safety in the industry remains in a similarly "parlous" state as it was when the 1997 Mine Safety Review and Gretley Inquiry reports were made. They claim the industry is failing to manage crucial factors such as contractors, hours of work, risk assessment and consultative processes and that DPI is failing to effectively enforce the existing regulations. The unions consider that the Review should report to the Minister that more resources must be allocated to safety.

In terms of the industry's safety performance, the unions provide a number of statements which claimed serious deficiencies in the safety performance at certain localities. They have concerns about long hours, contractors, enforcement by DPI and the move towards goal setting legislation in general and using the risk management approach to regulating hours of work in particular. They place great reliance on the DPI to effectively solve these problems by being a stronger and better regulator.

The unions submit that there is a need for the strengthening of consultative processes throughout the industry and improvement to the operations of the Mine Safety Advisory Council.

The unions identify the issues of contractors and hours of work to be two critical issues. They submit that a Board of Inquiry should be convened under Section 94A of the *Coal Mines Regulation Act 1982* (CMRA) to investigate the failures of the industry and the Department to address these important issues.

The unions submit that DPI's enforcement record has improved little since the Gretley Report and that DPI's record towards prosecutions when considered against the accident statistics remains "appalling". They request that the Review recommend that a specific independent review of the prosecutions policy and practices should occur.

The unions claim that the safety culture of the industry is inadequate as it is failing to address the needs of workers and they point to worrying trends: a culture developing among one third of the industry (the contract workers), who are fearful of raising safety concerns; a culture of working longer hours; a culture of top down safety management and a failure to properly consult; and a culture of using risk assessments to justify unsafe practices.

DPI's overall approach is also of concern to the unions. The CFMEU claims that DPI has its own agenda of seeking to divest itself of many of its regulatory responsibilities.

The unions see an important ongoing issue being the perceived conflicts in the corporate mining industry of production versus safety and mining works/costs versus safety. They claim there is pressure on managers at all levels to minimise costs and maximise production, with safety issues being of lesser consideration.

There is a distrust by the unions of more "systematic" approaches to safety management; and the serious concerns of the unions are symptomatic of their underlying lack of trust in the corporate mining industry and the regulator.

Department of Primary Industries (incorporating the former Department of Mineral Resources)

A comprehensive reform program for mine safety has been under development in Government since 1997. The initial program flowed from the implementation of the recommendations of the 1997 Mine Safety Review and the Gretley Inquiry Report.

The purpose of the program is to improve the safety performance of the mining industry by changing the regulatory model, systems, processes and the culture through a wide range of complementary strategies.

Major elements of the broader change program include: development of mine safety legislation; review of safety performance measures; development of a National Mine Safety Framework; and training and competency.

The Department of Primary Industries (DPI) states in its submission that the 1997 Mine Safety Review and Gretley Inquiry Report recommendations relevant to the regulator have been largely dealt with by DPI, but some of the issues contained in those recommendations are ongoing matters for continuous improvement. The implementation has been carried out through a tripartite process involving consultation with industry, unions and Government and has been overseen by the Mine Safety Advisory Council.

Limitations on working hours already exist in the current legislation (*Coal Mines Regulation Act 1982 and Mines Inspection Act 1901 - the Coal Mines Regulation Act 1982 deals with coal mines only and the Mines Inspection Act 1901 deals with all other mines (metalliferous and extractive operations)*) and considerable research into the practices elsewhere is provided in the DPI submission. The DPI has put considerable resources into the development of guidelines for fatigue management and an appropriate audit tool. Unfortunately, agreement in the industry on the guidelines and the inclusion of a limit on working hours has not yet been reached (*and the Review is left with the view that an agreement at this stage on these critical issues is most unlikely to be achieved having regard to the present poor relationship amongst the stakeholders*). Certainly it is the DPI position that hours worked, should be a major factor taken into account in fatigue management.

The current enforcement policy of DPI allows for a range of enforcement responses, depending on the circumstances of the breach, from warning to prosecution. When appropriate in the DPI view, prosecution is pursued vigorously. DPI notes that it is conscious of the need to strike the right balance, between improvement strategies and prosecution, in order to have the most positive impact upon improved safety performance.

5. CONSIDERATION OF THE REVIEW TERMS OF REFERENCE

5.1 *Review the progress with the implementation of the recommendations of the Mine Safety Review and the Gretley Report*

5.2 *Consider whether any change in the implementation of these recommendations is required*

The Review finds that the majority of recommendations in the 1997 Mine Safety Review and the Gretley Inquiry Report have been carried out.

Appendices 7 and 8 list the recommendations of the 1997 Mine Safety Review and the Gretley Inquiry Report respectively.

Appendix 9 (adapted from the DPI submission) discusses the process carried out to implement the recommendations of the two reports.

Appendices 10 and 11 (extracted from the DPI submission) tabulate the progress made with implementation of these recommendations.

There are however a number of matters, subject of recommendations in the earlier reports, which remain to be dealt with and/or completed. The relevant matters are outlined below.

Safety incentives

The 1997 Mine Safety Review raised concerns about the use of safety performance incentive schemes and use of production bonus payment schemes, and recommended that those warranted further investigation.

As part of its submission to this Review the CFMEU provided information on several such safety incentive schemes operating at specific mines. CFMEU representatives claimed such schemes discourage reporting of injuries and create tensions amongst workers. On the other hand the financial benefits of the schemes are appreciated by the workforce. The companies believe that incentives can directly contribute to improved safety through better workforce focus on safety. Nevertheless, the Review considers the issues of safety incentives and production bonuses are a reasonable concern.

The Review considers that the recommendations of the 1997 Mine Safety Review (see Appendix 7), regarding the practice of production bonus payments and safety performance incentive schemes, have not been adequately addressed to date and do warrant further independent investigation.

The Review recommends that an independent assessment of the practice of production bonus payments and safety based incentive schemes, be undertaken as a matter of priority, under the direction of the reconstituted Mine Safety Advisory Council (MSAC).

Risk-based legislation

There is an accepted need for an industry-wide, generic approach through regulation to mine safety which ensures appropriate processes and standards are followed. This includes mechanisms for checking, auditing and follow-up action by the regulator and for worker consultation and involvement at all levels in the process. However, there is disagreement between the companies and the unions as to whether the regulations should be largely risk-based or prescriptive.

Appendix 12 (adapted from the DPI submission) documents the development of new NSW mine safety legislation. The *Occupational Health & Safety Act 2000* (OH&S Act) provides an "umbrella" Act and the obligation of general duty of care to the workforce. The *Coal Mine Health & Safety Act 2002* and the *Mine Health & Safety Act 2004*, when commenced, will replace the *Coal Mines Regulation Act 1982* and the *Mines Inspection Act 1901*.

At present the *Coal Mines Regulation Act 1982* has the 1999 Regulations, and the *Mines Inspection Act 1901* has the *General Rule 2000*, as the principal regulations. These Regulations are to be replaced in each case by new Regulations, not yet made.

The new Acts represent a step towards aligning mining with the OH&S mainstream, but still recognise a need for supplementary mining specific legislation. The new Acts reinforce the risk-based management approach to mine safety. Risk-based management systems have already been included in the *Coal Mines (General) Regulation 1999* and *General Rule 2000* which have served as an introductory path to the risk-based management approach now contained in the new Acts.

The new *Coal Mine Health & Safety Act 2002* complements the OH&S Act and contains additional features such as recognising check inspectors (appointed by the union). Local check inspectors are now to be members of OH&S Committees. DPI notes that a major education program is still to follow the introduction of the new Acts.

The old Regulations will remain in place until the new Regulations come into force. The new Acts will commence when this occurs.

Two significant court decisions (Wallarrah and Awaba) have reinforced that satisfying the *Coal Mines Regulation Act 1982* does not necessarily automatically satisfy the OH&S Act and that the OH&S Regulations apply to mines for general hazards and duty of care. There are presently challenges to the Awaba and Gretley decisions in the NSW Court of Appeal that will test aspects of the OH&S Act. The matter is ongoing and there is no indication of when a judgement can be expected. If the companies are successful in their challenges, it will have a significant impact on safety laws.

Two recommendations of the 1997 Mine Safety Review highlighted the promotion of risk management as a tool, and the need for site reviews of core risk management practices. The corporate mining industry continues to support enabling, risk-based legislation and associated models, and claims there is reluctance by regulators to move in this direction because of increasing union pressure. Unions claim that staff conducting risk assessments at site level are not adequately trained to perform this task, nor take into account the full nature of risks. The CFMEU in its submission expresses a negative attitude to risk-based regulation and reliance on OH&S management systems and wishes to retain prescriptive regulation.

The Review considers that enabling, risk-based legislation has the potential to offer some safety improvement, if combined with effective safety management systems, good communication/feedback, full involvement of all levels of the workforce and an effective regulator. The successful use of systems and plans to manage risk requires that activities be effectively monitored and audited for adherence to the intended systems and plans.

The Review acknowledges, however, that the requirements of risk-based legislation can be more onerous than reliance on a more “prescriptive” approach. The effort required to prepare, and the complexity of, plans should be directly proportional to the complexity and scale of the mining operations.

The Review considers the consensus of expert opinion favours a shift to risk-based legislation, but with the retention of prescriptive regulation in particular areas (eg, where the safety factor of the risk is uncertain and a careful threshold is required, such as mine gas levels). However, the critical issue is the effective implementation of safety management systems. The shift requires demonstration that risk-based standards are effectively enforced. A number of submissions acknowledge there are serious issues here in terms of “paper compliance”, gaps and oversights.

The Review notes that prescriptive legislation has two significant problems. Firstly, by stopping at the level of the mine manager, it puts no obligations on mine owners, to control risks. Secondly, some health or safety issues are not covered by the particular rules, for example over-use injuries, and are beyond the scope of

the law. These weaknesses have been reduced by the "duty of care" approach in OH&S legislation, which has been widely adopted in Australian and UK legislation.

The Review has noted a misapprehension by some parties that a risk-based "systematic" approach or "safety case" approach encourages "self-regulation." The converse is true. A safety case approach as used in other industries, eg. offshore petroleum, requires a strong and effective regulator to "accept" a safety case. A safety case includes a succinct description of the hazards, risks, control measures and how these control measures are managed, (including suitable performance standards). These typically result in much more information being provided by the regulated company than is typically required by other forms of regulation. Safety cases require more consultation with the workforce than other regimes, and highly trained and competent staff.

Appendix 13 provides a summary of a well regarded British overview on the concepts of risk assessment, risk-based legislation, and a statement of principles involved in regulation development.

Regulations

DPI has had the responsibility of developing new Regulations for new mine safety legislation (not yet commenced) in consultation with the industry. The unions have been critical of the process for the development of the Regulations. The process commenced in early 2003. The unions claim that the former DMR began this process with a piecemeal approach of gaining stakeholders views on different topics before providing discrete drafts of Regulations that may be introduced on those topics. The unions submit that this approach fell short of their expectations, which were that the Department's role was to ensure that the rights, responsibilities and protections afforded by existing regulations would be included in the new statutory framework.

The unions are apprehensive about the new risk-based regulatory approach. They consider that a stronger regulatory (ie prescriptive) framework will ensure improvements in the safety performance of the industry. They fear that risk will not necessarily be assessed and managed adequately, and that the necessary enforcement to ensure that it is, may be deficient.

The fact that Regulations under the new legislation have not yet been made is of concern to all parties. The process has been one of trying to reach consensus as to the content of the Regulations, but after protracted negotiations between the parties on a number of topics (particularly hours of work and contractor management) the process has broken down.

The Review considers that final analysis and determination of both the hours of work and contractor issues can be achieved in the short term, given the stage that

consideration and discussion between the parties has reached. (See discussion below in chapter 5.4)

The Review recommends that the Regulations, proposed under the Coal Mine Health & Safety Act 2002, should be introduced without delay. In addition, the Review recommends that the introduction of Regulations for the Mine Health & Safety Act 2004 be expedited.

The Review recommends that such Regulations require mine owners and operators to involve employees in the development, implementation and monitoring of the systems and plans required by the Regulations.

The Review recommends that the new Regulations be subject to further audit and review 24 months after commencement.

Databases

The 1997 Mine Safety Review identified the need to establish a more comprehensive range of reporting and performance measures to more accurately reflect safety performance within the mining industry (see Appendix 14 adapted from the DPI submission).

There are regulatory requirements for the reporting of a range of incidents and the Department has a database on reportable incidents (COMET). Anecdotal information from inspectors interviewed indicates that the current COMET system has many deficiencies, is very user unfriendly and time consuming to use. It also does not provide satisfactory reports for compilation of relevant information about safety history in the mines. The CFMEU has also been critical of the current COMET system and how its inefficiency is reducing the time inspectors have to do their inspections efficiently.

During the Review the main focus in terms of discussing performance indicators (amongst all parties) were fatalities, Serious Body Injuries (SBIs) and Lost Time Injury Frequency Rates (LTIFRs). This confined set of indicators was also reflected in a report on performance indicators prepared for the Mine Safety Advisory Council in July 2004 by the DPI which included workers' compensation costs, fatalities, LTIFRs, permanent and temporary disablement, serious bodily injuries and enforcement notices. Though more valuable than relying on LTIFRs alone, this array still only measures a restricted set of outcomes. The limitations with focusing attention on LTIFRs were raised in the 1997 Mine Safety Review. These indicators provide only a narrow perspective on OHS performance.

The Review considers the lack of a broader set of performance indicators for mine safety carries with it a number of problems:

- It makes it more difficult to identify where and why OH&S performance is improving or deteriorating.
- The growing use of contractors makes it more difficult to assess both aggregate and mine specific trends in injuries etc., especially where their use has been associated with “under-reporting” of incidents. This has, in turn, implications for OH&S management systems and managing return to work.

An annual report on the NSW mine safety incidents and accidents recorded by DPI inspectors in the COMET system is prepared each year. This report goes to an expert Performance Measures Group under the Mine Safety Advisory Council. This Group (which includes Dr Anne Williamson from the Injury Risk Management Research Centre at the University of NSW) analyses the report and provides trends and statistics to the industry and DPI.

OH&S issues causing LTIs may, if serious enough, be reported and become subject to investigation, recording and analysis. Safety sheets and reports are issued to assist industry to control hazards identified in reported events.

Incidents and accidents that are not of sufficient seriousness to be required to be reported are not generally captured in DPI systems. Data on these for the coal sector is in NSW captured by Coal Services Pty Ltd via workers compensation reports and claims. WorkCover captures some data for the metalliferous and extractive sectors.

There are several national and global initiatives attempting to develop an approach to gather better safety and health performance information. The ICMM (International Council of Mining and Metals) is working with the GRI (Global Reporting Initiative) to define a global approach for the minerals industry. The Centre for Sustainability in Mining in South Africa has an industry funded project to develop an African database that may be expanded globally through the ICMM. The National Mine Safety Implementation Framework also has a working committee on data collection being convened by the Victorian regulator. The MCA (Minerals Council of Australia) also gathers and publishes performance data regularly, as well as funding the MICI (Minerals Industry Cooperation Initiative) - that has a project to develop a national Health & Safety database for the industry. All initiatives have similar goals. They are trying to identify effective measures, standardise definitions and develop a system with minimal redundant input requirements.

The Review recommends that the existing COMET data system used by the DPI Inspectorate, and its mine data/indices, should be benchmarked and improved to national and international best practice.

Exposures to health hazards

Some submissions to the review highlight the relatively poor information on exposures to health hazards and the incidence of work-related disease in the mining industry. There would seem to be a strong case for adopting measures to begin addressing this more comprehensively in the NSW mining industry. The tendency of workers to stay with the mining industry would make the collection of meaningful data more feasible than in many other industries. Further, long term health measures could be especially valuable in terms of managing an ageing workforce in a high hazard industry.

The Review considers the absence of comprehensive health/hazard exposure indicators is a serious issue requiring urgent attention.

Coal Services Pty Ltd has the responsibility to monitor health impacts for the coal sector. WorkCover captures some data for the metalliferous and extractives sector and covers workers compensation schemes. The Dust Diseases Board covers compensation requirements where health problems have arisen due to long-term exposure to dust (eg. silicosis and asbestosis).

The Review considers that data gathered at mine sites by DPI and Coal Services Pty Ltd should be compatible and able to be cross referenced. The Review considers that much more comprehensive health indices should be developed. Health hazards need to be identified and monitored.

DPI acknowledges that it does not regulate workforce health issues and essentially focuses on safety issues. The Review considers this represents a major unresolved issue. It is widely accepted that regulation of OH&S must include health as well as safety issues, usually under the control of one authority but at the least with central coordination.

The Review recommends the responsibility for the regulation of mine health and safety issues be brought together under DPI, rather than by separate agencies as at present.

The Review recommends that DPI be responsible for identifying potential mine related health hazards and for monitoring and reporting on such hazards to MSAC and other relevant agencies.

The Review recommends that DPI, in conjunction with other relevant agencies, develop a data base on mine related health indices as a matter of priority.

The Review recommends that MSAC progress, as a priority, improved mine related health regulation and monitoring.

5.3 Review the operation of the Mine Safety Advisory Council and the supporting consultative process

Mine Safety Advisory Council

The Mine Safety Advisory Council (MSAC) was convened following the 1997 Mine Safety Review and the Gretley Inquiry and its major task was to develop and progress new mine safety legislation, through a tripartite "consensus" approach.

MSAC has been recently established in legislation (commencing in September 2003 under Section 341 of the *Mining Act 1992*) which had the support of the major stakeholders. The Council is a tripartite body, consisting of representatives from the corporate mining industry, unions and government.

Appendix 15 (adapted from the DPI submission) outlines the operation of MSAC.

Section 341 of the *Mining Act 1992* states:

- (1) *The Minister is to establish a Mine Safety Advisory Council that includes representation from peak industry and employee organisations.*
- (2) *The Mine Safety Advisory Council has the following functions:*
 - (a) *providing advice to the Minister on any policy matter relating to occupational health and safety in mines.*
 - (b) *any other advisory function relating to occupational health and safety in mines that is prescribed by the regulations.*
- (3) *The regulations may make provisions for or with respect to the constitution, members and procedures of the Mine Safety Advisory Council.*

Section 47 of *Mining Regulation 2003* states that:

- (1) *The Mine Safety Advisory Council comprises the following members appointed by the Minister:*
 - (a) *one or more persons nominated by each of the following bodies:*
 - (i) *the NSW Minerals Council (representing the coal sector),*
 - (ii) *the NSW Minerals Council (representing the metalliferous sector),*

- (iii) *the Crushed Stone and Sand Association of NSW,*
 - (iv) *the Construction Forestry Mining and Energy Union, Mining and Energy Division,*
 - (v) *the Australian Workers' Union, Greater New South Wales Branch,*
- (b) *the Director-General of the Department or a representative of the Department nominated by the Director-General,*
 - (c) *an independent person as Chairperson of the Council.*

(2) Of the members referred to in subclause (1) (a), equal numbers of employer representatives and employee representatives must be appointed.

(3) Subclause (1) does not prevent the Minister from appointing not more than 2 additional persons as members of the Council being persons who, in the Minister's opinion:

- (a) are independent of the bodies referred to in subclause (1) (a), and*
- (b) have expertise that would be of assistance to the Council.*

MSAC has been successful in developing and progressing the *Coal Mine Health & Safety Act 2002* and the *Mine Health & Safety Act 2004*. Both these Acts have now passed through both houses of Parliament. However MSAC has been unable to effectively progress the Regulations to these Acts due to the lack of consensus between unions and corporate industry representatives on a number of outstanding issues - including hours of work and contractor management.

Effectiveness of the Council

The effectiveness of consultative processes via MSAC is subject to criticism by all parties. For example, the Mine Managers Association in its submission saw the present MSAC as "remote and unresponsive to the industry's needs". While the Mine Safety Advisory Council was established to provide a vehicle for progressing matters on a cooperative basis, all parties expressed concern about the current operation of the Council and its failure to resolve outstanding issues between the parties.

The CFMEU in its submission states that "we believe that the quality of consultation can be improved. MSAC in recent times has been a disappointment

and it has acted as a relatively narrow reporting forum rather than an opportunity for open dialogue between the parties”.

On the other hand, a number of employer submissions refer to the recent deterioration in the activities of MSAC and its committees due to unions pursuing an “industrial relations” agenda. Recent changes to work practices (such as the use of contractors, casuals and changes to staffing levels) and the industrial relations climate (notably the use of individual contracts and campaigns over union recognition) raise a mixture of OH&S and non-OH&S issues (ie industrial relations issues) that may be very difficult to disentangle in practice.

The "journey" towards enabling legislation

The NSW mining industry at this time is part of the way along a “journey”, from prescriptive Acts and Regulations to a more enabling style of legislation where methods of analysing and managing risks are required. The more enabling style is consistent with global trends based on recommendations from major similar studies and investigations around the world.

The success of this journey depends on stakeholder understanding of the changes, support for the changes, and the trust and commitment of all parties. Absence of any by the stakeholders (Government, companies and labour representatives) may lead to failure. Issues considered in this Review such as hours of work and contractors are indicative of problems on the journey.

Revitalising the Mine Safety Advisory Council

Both the Minerals Council and DPI see the Mine Safety Advisory Council as having a key ongoing role in addressing the industry safety culture. There is a widespread view that the operation and performance of MSAC can be improved. The Minerals Council and DPI have both made a number of recommendations in this regard.

The Review is satisfied that this tripartite MSAC needs to be made more effective. The Review therefore considers that the function, constitution and terms of reference of MSAC need strengthening and revitalising. MSAC is an existing vehicle which must be improved to deliver more, in a collaborative way.

The Review sees focusing recommendations on strengthening and improving the operation and effectiveness of MSAC and related committees as very important. To deliver effective change and improvement in New South Wales mine safety management requires all parties to agree on a shared vision of what the future should look like. This vision could be the product of a revitalised and strengthened MSAC which incorporates:

- political and senior tripartite officials' support and participation;
- agreed goals;
- appropriate resources; and
- a small, competent and independent support team

The Review endorses the following proposed actions to enhance MSAC:

1. A need to establish the best consultative structure of MSAC and other related committees, to develop a strategic plan for the NSW industry that outlines the vision and the pathway to achieve the vision over the next 5 years.
2. A need to seek agreement to a decision making process that focuses the committees on safety and health issues, minimising interferences from political or other outside issues.
(Note that this process should be documented and communicated in a similar manner to the HSE "Reducing Risks, Protecting People - HSE Decision Making Process" - see Appendix 13).
3. A need to establish a method of defining required work programs through MSAC and other committees with resources to undertake those work programmes derived from the stakeholders.
4. Once MSAC is strengthened and revitalised and its strategic plan is defined, contentious issues such as hours of work, contractors and fatigue management should be further examined and progressed by MSAC.

The Review recommends that a new, strengthened Mine Safety Advisory Council (MSAC) should take forward future examination and progression of mine safety and health issues.

Models for MSAC

The Review considered two main potential models that could be considered for a revitalised MSAC. These are:

- 1) A body similar to the present MSAC but with two independent, expert members. The purpose of these members would be to provide a neutral yet highly knowledgeable approach to the MSAC deliberations. Independent members would be nominated by the corporate mining industry and unions respectively, but would also need to be acceptable to both parties.

- 2) A body similar to that which operates in Queensland (which has provisions for voting on contentious issues prior to making recommendations to the Minister).

In Queensland, under the *Coal Mining Safety and Health Act 1999* and the *Mining and Quarrying Safety and Health Act*, Coal and Mining Safety and Health Advisory Councils have been established. The function, membership and operation of these Councils are comparable to MSAC. However, there is provision for voting to take place and if the Council gives advice or makes a recommendation to the Minister, it must advise if the decision was unanimous and if not, advise what the view of the minority is.

If MSAC is to be more effective as an advisory body, then it could be given the capacity to vote and make clear recommendations as is the case in Queensland. A majority vote should be able to be obtained either by the major parties i.e. corporate mining industry and unions joining together or by the DPI representatives, independents and either of the major parties reaching agreement. Membership of the Council should be such to enable this to be achieved. As in Queensland the view of the minority should also be conveyed to the Minister in any advice or recommendation made by the Council.

If this model was adopted, it would be necessary to amend the regulations to provide for voting and for a majority decision.

The Review favours the first model for the new MSAC.

The Review considers that the number of employer and employee representatives should be restricted to three each, to more readily focus MSAC's deliberations.

The Review considers that the Council adopts a "strategic" position in regard to the mining industry and sets its own priority issues as circumstances change. It also must be seen as a body to which issues can be referred directly from the corporate mining industry or the unions, and be the main conduit for advice on mining health and safety issues to the Minister. The Review considers that MSAC needs to meet more frequently than at present, probably at least six times a year.

The Minister, under the above suggested management structure of MSAC, would be able to obtain advice from DPI in the normal manner, plus separate and independent advice from the Council.

Funding and resources for MSAC is an issue which needs addressing. The Review considers that an adequate annual budget must be provided for MSAC to adopt a more independent and effective role. This budget would depend on the

extent of projects undertaken by the new MSAC. The Review favours the imposition of a small levy on the coal companies in order to provide financial independence for MSAC. This levy could also be used to help provide funds necessary to enhance inspectorial resources and mine safety initiatives in New South Wales. At the same time Government would need to give consideration to an appropriate levy system on the metalliferous and extractives sectors of the industry.

Funding from an industry levy provides MSAC with a more secure funding base than normal Government budgetary funding. It is also considered appropriate that industry bears the cost of at least a proportion of safety regulation given the economic benefit that individual companies may derive from conducting operations with good levels of OH&S performance.

The Review recommends that the structure and membership of the Mine Safety Advisory Council (MSAC) be strengthened by:

- the appointment of an independent Chairperson, being a person of eminence in the Australian community;***
- the inclusion of two independent members, expert in occupational health and safety; and***
- the most senior level of representation from all parties participating in the formal proceedings of MSAC.***

The Review recommends that MSAC shall be the vehicle for referral of industry occupational health and safety matters to the Minister, and that the Chairperson of MSAC, after consultation with the Council, shall provide the Minister with MSAC's recommendations on such matters. Failing agreement by the members of the Council, the Chairperson shall provide his/her recommendations on matters to the Minister.

The Review recommends that MSAC be empowered with an independent capability to conduct research, commission consultants, process/evaluate submissions from Council members and develop policy recommendations.

The Review recommends that MSAC be provided with a secretariat, independent of DPI, comprising a small support team and an Executive Officer appointed by the Chairperson.

The Review recommends that MSAC be resourced appropriately to carry out its charter and work program. The Review favours the imposition of a small levy on the coal companies in order to provide financial independence for MSAC, together with the capacity for MSAC to engage independent advisory consultants as required. This levy might also be used to help provide funds necessary to enhance inspectorial resources and mine safety initiatives in New South Wales. At the same time Government would need to give consideration to an appropriate levy system on the metalliferous and extractives sectors of the industry.

5.4. Review and make recommendations in relation to:
(a) the safety performance of contractors;
(b) the broad practice of hours of work and fatigue management;
in the New South Wales mining industry

Introduction

It is clear that contractors have become and will remain into the future an important part of the mining industry workforce. Contractors occupy a number of roles in the workforce. They have always been used for highly specialised activities and in recent years this has expanded to occupying more "normal" mining categories in the workforce. In the former cases contractors provide the ability to utilise specialist skills and knowledge to carry out certain activities and/or tasks within the operations, which mine staff simply do not have. On the other hand, it is becoming increasingly common for mines to obtain part of their normal workforce from contracting companies, or to use entire workforces supplied by contracting companies. In broad terms, the three main groups of contractors could be categorised under "Production (ie Mining)", "Maintenance" and "Administration".

Appendix 16 and 17 (adapted from the DPI submission) provide some background on the safety performance of contractors and the hours of work and fatigue management issues.

The current focus on the safety performance of contractors has been accentuated by the fact that the last three fatalities in the New South Wales coal mining industry have all been contractors.

The corporate mining industry believes that continued improvement in contractor's safety performance can be achieved through:

- Developing strong working partnerships,
- Effective communication,
- The use of contractor management plans in accordance with the NSW Minerals Council (NSWMC) guidelines, and
- Safety management in line with and in parallel with the processes used for the "normal" workforce.

The NSW Minerals Council has made many detailed recommendations in their submission to improve contractor safety, in line with the above basic principles

(see Appendix 22). The Review considers these should be taken into account through the MSAC process, involving consultation with the unions as to their views on these recommendations.

(a) Contractors

There appears to be a general recognition amongst stakeholders that the growing use of contractors in the mining industry has implications for OH&S that require attention. This view is supported by a growing body of international research on the OH&S effects of contract labour, whether they be self-employed, contractor employees or labour hire workers. For example, in the USA, a study by Rousseau and Libuser (1997) noted that contractor employees accounted for 17% of fatalities in the US mining industry, even though they made up only 10% of the total mine workforce at that time.

Although little systematic research has been undertaken into the use of contractors in mining in Australia, a report by the Western Australian Prevention of Mining Fatalities Taskforce (1997) pointed to a close association between a rising level of mine fatalities and the growing use of contract labour in the mining industry. The Taskforce concluded that "provisions to ensure that established occupational safety and health management systems were maintained subsequent to this change were either not made or were not adequate".

Estimates as to the level of contractors in the NSW mining industry vary between 20 and 30% of the total workforce (ie between 3000 - 4500 people). A current survey being undertaken by Dr Anne Williamson, Deputy Director of the NSW Injury Risk Management Research Centre, University of NSW, for DPI may provide a more accurate assessment. Dr Williamson's "Survey of employment type, hours of work and safety in NSW mining in the 2003/2004 period" was sent out to all coal mines and about 20 large metalliferous mines and extractive operations in the State. Unfortunately this survey and analysis of its results has not been completed in time to be of assistance to the Review.

It should be noted that only two mining contractor companies (Roche Mining and Thiess Pty Ltd) made submissions to the Review, so the views of contractors generally could not be more widely canvassed.

A report prepared in 2002 (Evesson, 2002) concluded challenges were still outstripping the development and implementation of remedies for safety management of contractors in the coal mining industry. Further, there appears little recognition that increasing numbers of contractors may have cumulative effects on the capacity of mining companies to safely manage contractors. What may also be critical here is the growing number of inexperienced miners, as the older generation of miners leave the industry. The report notes that this is likely to compound "disorganisation" (a major risk associated with contract work arrangements) issues.

In its submission, the CFMEU points to instances of communication failures, inexperience and inadequate training/induction as well as corner-cutting measures that compromised OH&S. For its part, the Australian Workers' Union also points to poor training and production pressures in relation to the use of contractors. While more systematic information is needed, these reported cases are of concern as they are consistent with the findings of a range of international studies into contracting and subcontracting. The unions also argued that contract workers were commonly reluctant to raise OH&S matters with mine management, citing examples in support of this contention. Again, this suggestion is consistent with studies in other industries that have found contract workers are less likely to raise OH&S issues.

The NSW Minerals Council, in its submission, notes that improvement with contractor management must continue, and that its members have endorsed a contractor safety campaign, commencing with industry workshops on newly released information guides.

Economic and reward pressures are a critical risk factor in relation to contracting work arrangements. Other problems relate to the need to effectively audit contractor management systems as well as more general requirements in relation to OH&S management, such as inadequate management training, the risk of "paper compliance" and inadequate performance indicators.

The Review considers that the current contractor management arrangements in the new legislation, when implemented, should bring into force a sound regime to manage contractors' safety and health in the mining industry.

Monitoring implementation will be a key role for the DPI Inspectorate. The Review considers that ongoing risk-assessment and monitoring of contractor and subcontractor activities is essential to ensure that they adhere to management plans. In particular, communication and feedback loops for both contractor employees and those working alongside them need to be established so any problems can be identified and rectified.

The Review supports the DPI proposals that:

- the new legislative requirements in relation to contractors be introduced as soon as possible; and
- after 24 months following the implementation of this legislation, a major audit be carried out by the DPI of the practice, performance and compliance under the new requirements.

The Review considers it is important that safety management requirements for contractors and company employees should be the same, to avoid two classes of workers developing on mine sites, with obvious attendant safety problems. The focus needs to be on the safety management of the *operations* rather than trying

to define the detail of contracting relationships. The onus should be on one (corporate) manager to ensure the arrangements work in practice.

The Review recommends that provisions relating to contractor management in the Coal Mine Health & Safety Act 2002 and its proposed Regulations be implemented without delay.

The Review recommends that DPI:

- ***closely monitor the implementation of contractor management provisions during the initial two years of operation; and***
- ***conduct a major audit of the practice, performance and compliance under the new provisions after two years.***

The Review recommends that DPI closely monitor and audit contractor management systems and take enforcement action commensurate with the gravity of any breach of the required provisions.

Induction schemes for contractors

The then NSW Department of Mineral Resources has previously given consideration to the introduction of a general induction passport system (covering both coal and metalliferous mining) for contractors that might be extended to all mineworkers. The AWU in its submission strongly supported the introduction of a contractor passport system.

The generic induction would be integrated with company and site specific induction. This suggested initiative would only deal with induction, not the general management of OH&S. Research of 50 mine-sites undertaken by the CFMEU indicated that, in general, contractor management companies placed fewer controls on shifts and hours of work than those applied by the principal operator to the core workforce.

Industry association initiatives include the development of multi-employer or industry-wide induction schemes or “passports” for contract labour. An example of this was MARCSTA pioneered by the Western Australian mining industry, entailing a one or two day induction (depending on whether miners were working underground) and the issuing a ticket that enabled the holder to move into different organisations without repeating the induction at each. The scheme was developed in recognition of the increasing use of contract labour, the costs of providing induction for such “fluid” labour and concerns at a diminishing impact from repeated inductions. This scheme was regarded as partly successful but waned a little because a number of mine managers, concerned to meet their duty

of care, continued to insist that anyone coming onto their site had to have an induction they were happy with, not a “third party” one. A drop in the quality of the induction provided by accredited trainers was also seen to contribute to this. Despite these concerns, the Minerals Council of NSW was considering adopting a similar system, for the same reasons it had been adopted in Western Australia and partly because members were unhappy with a mandatory alternative. For their part unions preferred the mandatory approach.

The Review endorses the need for all contractors coming onto a mine site to have participated in a relevant industry-recognised induction scheme.

Monitoring hours worked

A number of submissions raise concerns about the hours worked by contractors. For example, the submission of the Mine Managers Association argues that the hours worked by contractors should be measured, especially in the context of their greater use in the mining industry in recent years. A related problem raised in relation to this was the ability of contractors (or their employees) to move from one job to another (and thereby evade the hours restriction that may apply at any mine).

The Review recognises these concerns and the need to more accurately record and monitor this data.

In relation to the lack of knowledge of the hours worked by contractors elsewhere before arriving on a mine site (and hence people’s fitness for work), computer “swipe” card or “smart” card systems have been suggested to help manage this problem.

The Review recommends that the new MSAC progress the development by industry of systems to more accurately record and monitor hours worked at mine sites by all workers. Such systems could include the use of a computer “swipe card”, “smart card” or similar technology.

References

- Evesson, J (2002). Safety Management of contractors in the coal mining industry: challenges and insights from the field, ACIRRT, University of Sydney.
- Rousseau, D. and Libuser, C (1997). Contingent Workers in High Risk Environments. California Management Review 39(2):103-21.
- Western Australian Prevention of Mining Fatalities Taskforce (1997). Report on the Inquiry into Fatalities in the Western Australian Mining Industry. Western Australian Mines Occupational Safety & Health Advisory Board.

(b) Hours of work and fatigue management

The issues of hours of work and fatigue management for mine workers (including contractors) are complex and related. The current legislation (*Coal Mines Regulation Act 1982* and *Mines Inspection Act 1901*) prescribes a maximum daily limit on the number of hours worked in the coal (18 hours) and metalliferous sectors (8 hours except when exemption is granted).

However, the Review found that the legislative prescriptions bear no relationship to current practice in the industry. The Review found such a wide variation between mine sites in the hours of work, shift patterns and approach to fatigue management as to suggest that the current legislation in relation to hours of work is largely irrelevant.

Existing NSW legislation relating to hours of work is shown in Appendix 17. No other State in Australia mandates specific hours of work for the mining industry in their legislation.

The second reading speech by the then Minister for Mineral Resources in the Upper House (Legislative Council) of the NSW Parliament for the *Coal Mine Health and Safety Bill 2002* (page 7788 of *Hansard* of 5 December 2002) said:

"An important part of safety management is to ensure that employees who often work in challenging underground conditions, are fit for work and not fatigued.

Section 168 of the Coal Mines Regulation Act 1982 contains important safety provisions regarding hours of work.

As part of the modern legislative framework, these provisions are not expressed in the Bill, but rather will be retained in the regulations".

It appears that average working hours and the proportion of the workforce undertaking longer duration (ie 12 hour shift) working hours in the mining industry have significantly increased in the past decade. The NSW Minerals Council and employer representatives on the one hand and the unions on the other gave different accounts in their submissions of working time arrangements in the industry.

The Review considers there was insufficient evidence presented in submissions received and information obtained from site visits to draw firm conclusions about the pattern of working time arrangements. Research on hours of work (and contractors) being undertaken by Dr Ann Williamson from the University of NSW for DPI (due for completion in early 2005 after completion of this Review) may provide some more information. The Review notes a CFMEU observation that these surveys have difficulty in extracting extreme cases, tending to focus on the

overall medians and averages. It is the extreme cases which are more likely to present safety management issues. Furthermore the survey is based only on questions to employers rather than employees as well.

Concern with long hours in the mining industry has prompted government intervention in Tasmania. A review in Tasmania (Heiler, 2002) and an inquiry in Western Australia (Ritter, 2004) both found evidence of extended shifts in mining that posed an unacceptable OH&S risk. This emphasises the need for employers to be conscious of the necessity to manage fatigue, in many cases with stronger practices than are presently in place.

The Review has noted some members of the mining workforce find some attractive features about working long shifts – many of the rosters used provide blocks of days off together with increased financial benefits from various penalty rates. At a practical and realistic level, workers in the field indicated to the Review at site visits that they wanted to work longer hours as they "need the money". Also for some, there can be significantly less travelling time to work per fortnight, because of the longer working shifts reducing the number of days at work.

The Review has also noted that contractors (by the very nature of their employment) can be under more pressure to perform more work or carry out more production over longer work periods than their regular workforce counterparts. The Review has also noted comments from the CFMEU that underground mining hours of work may need to be more closely regulated and monitored than work carried out in other areas.

The Review also notes that the corporate mining industry recognises that longer shifts help reduce production costs. Most employer submissions were strongly against any attempt to regulate hours.

Models for working hours

There is a wide divergence of opinions on the issue of hours of work and fatigue management. An approach recommended by the Australian Mines and Metals Association, that takes account of a range of opinions, is to introduce a multi-regime or tiered approach to fatigue management (that has been adopted in other industries, and is used by the National Transport Commission). The DPI also outlines this policy approach in its submission. This approach enables operators to progress from standard fatigue management practices and hours of work to more flexible regimes, depending on the sophistication of the fatigue management

References

- Heiler, K, J (2002). *The Struggle for Time. A review of extended shifts in the Tasmanian mining industry.* ACIRRT, University of Sydney
- Ritter, M. (2004), *Ministerial Inquiry: Occupational health and safety systems and practices of BHP Billiton Iron Ore and Boodarie Iron Sites in Western Australia and related matters.*

systems in place. The three tiers all have specified maximum working hours and minimum breaks. The three regimes used by the National Transport Commission are:

Standard Hours Regime – a default regime prescribing minimum rest and maximum working hours where there are no fatigue management practices in place at a particular workplace. (12 hours per day, 72 hours per week and one 24 hour break every week)

Basic Fatigue Management – an optional, more flexible set of minimum rest and maximum working hours requirements with increased fatigue management and compliance responsibilities imposed on companies. (14 hours per day and 144 hours per 2 weeks and two 24 hour breaks every 14 days)

Advanced Fatigue Management – an optional approach to allow greater rostering flexibility based on risk management, alternative compliance and quality assurance approaches determined by an accredited body. (Average of 12 hours per day over 4 weeks and 154 hours per 14 days and four 24 hour breaks every 28 days)

The tiered approach above could satisfy the interests of some companies by providing a framework in which they can progress to the more advanced regimes and therefore utilise the most flexible working arrangements. This could also satisfy some of the concerns of the unions, as it allows the prescription of working hours in circumstances where there are no fatigue management strategies in place, and a broad working hours framework where a site has only implemented basic strategies.

DPI in its submission presents a "hybrid model" of working hours based on a number of recent Australian and overseas approaches to the hours of work issue. This model provides:

<i>“ Maximum working hours per 24 hours period</i>	<i>14 hours</i>
<i>Maximum weekly working time</i>	<i>60 hours</i>
<i>Maximum weekly working time averaged per year</i>	<i>48 hours per week</i>
<i>Continuous period of rest per week</i>	<i>24 hours</i>
<i>Minimum rest breaks</i>	<i>30 minutes achieved through 1 or 2 breaks every 5.5 hours</i>

It is generally acknowledged that people working during the midnight to 6am period of the night require shorter working hours and longer rest breaks than the representative hybrid case presented above.”

The Review considers that both the hybrid model and the tiered approach are superior to the existing legislation (*Coal Mines Regulation Act 1982* and *Mines Inspection Act 1901*) covering hours of work in the NSW mining industry.

The Review notes the shortage of more objective data on the hours of work issue. Because of the conflicting views presented, it is important that a project be undertaken to collect and analyse sufficient data to enable sustainable and justifiable conclusions to be made.

The Review suggests that the research design of this project should involve the development of a trial set of work hour parameters similar to that included in the "hybrid" model. Approached this way, the survey could identify the current hours of work and fatigue issues, as well as the impact of the trial set of parameters on job satisfaction, income, mine resources, contractor resources, etc.

The Review recommends that MSAC commission, as a matter of priority, an expert in the field to conduct an independent assessment of the hours of work and fatigue management in the mining industry, involving direct contact with a significant sample of the workforce at all levels.

The Review recommends that the results of this research (referred to in the previous recommendation) be directed to MSAC for consideration, leading to recommendations to the Minister, as a matter of the highest priority, in relation to hours of work and fatigue management.

The Review recommends that this research should not delay the introduction of the Regulations, proposed under the Coal Mine Health and Safety Act 2002.

5.5 Review the enforcement policy and the processes used by the Department to implement the policy

The DPI enforcement policy is set out in the publication "The Enforcement of Health and Safety Standards in Mines". The document was published in 1999 following the 1997 Mine Safety Review and the 1998 Gretley Report. The document reinforces the primary objective of health and safety in mines. It discusses the relationship between enforcement, assessment and investigation in obtaining and maintaining compliance with acceptable standards. The policy states that:

"The primary aim of enforcement by the Department is always to achieve this outcome (of conformity to acceptable standards) and ultimately, the primary objective ie protection of health and safety. In order to enforce the legislation the Department assesses and investigates examples of actual practices and compares them with acceptable standards. Whenever the Department detects a failure to comply with acceptable standards, industry should expect an enforcement response from the Department."

The document sets out in ascending order of severity the following range of enforcement responses:

- a) giving advice
- b) expressing concern orally
- c) issuing an instruction
- d) giving a direction
- e) issuing a written notice of concern
- f) issuing an improvement notice
- g) issuing a prohibition notice (a "stop work" order)
- h) reviewing and/or upholding a notice
- i) a formal warning
- j) seeking a court order
- k) prosecution.

Appendix 18 summarises the DPI enforcement policy and appendix 19a (adapted from the DPI submission) examines processes used by DPI in implementing the enforcement policy.

Both the unions and the Minerals Council are critical of the implementation of the DPI policy. The unions claim that there is inadequate enforcement, particularly in relation to prosecutions. They also claim that the assessment and investigation processes are inadequate in ensuring compliance with acceptable standards of mine safety. Conversely, the Minerals Council claim that there is too strong an emphasis on prosecution rather than on advice and education. The Council claims

this is inconsistent with the objective of achieving a more proactive and collaborative approach to mine safety.

Prosecution policy

Since the 1997 Mine Safety Review and the Gretley Inquiry Report, DPI has launched a number of prosecutions. There is wide disagreement amongst employers and the unions in their submissions as to the extent and effectiveness of these, with the former seeing such prosecutions as unhelpful to developing a more proactive approach to OH&S, while the unions are critical of what they see as inadequate enforcement. The DPI points out that in the last few years many prosecutions have been launched by Government, compared with virtually none in the preceding period (prior to 1999).

Prosecutions have been mainly launched by DPI where there have been fatalities.

DPI submits that prosecutions are resource-intensive to undertake, and take inspectors away from mine visits and audits.

DPI has to date only prosecuted under the OH&S Act 2000, because:

- there are higher penalties under the OH&S Act; and
- legal advice is that it is easier to satisfy a breach of a general duty of care under the OH&S Act.

Other enforcement activity

The DPI provides in its submission information on its enforcement activities, of which prosecution action is a major focus of attention. The Review has received limited information (see below) on the array of other enforcement activities (notices issued, stop work orders etc.) undertaken by DPI over a reasonable time span (the past five years).

Enforcement options are categorised by DPI as follow:

- a) Prosecution
- b) Stop work notice
- c) Improvement notice
- d) Other, including advice and education

Examples of other related activities the DPI undertakes include:

- Small mines campaign
- Production managers' workshops
- Engineering workshops

- Isolation audits
- Major hazard assessments
- Check inspectors' training

Advice and Notices are formalised in the legislation as follows:

Metalliferous (*Mines Inspection Act 1901*)

Section 36(a): supplementary powers of Inspectors or Mine Safety Officers (MSOs) for inspection or inquiry

Section 36(b): An Inspector or MSO to inform mine management of certain matters – Advice

Section 37: An Inspector to give notice of cause of danger-
Direction to remedy matter within a specified period

Section 37(a): An Inspector to give notice of serious danger -
Direction to withdraw personnel or stop work

Coal (*Coal Mines Regulation Act 1982*)

Section 61: Inspector or MSO to inform mine management of certain matters – Advice

Section 63: Inspector to give notice to impose prohibitions or restrictions or direct withdraw of personnel or stop work

The implementation of enforcement action, according to DPI, is largely discretionary, in that an inspector must form an opinion that an activity or location is "unsafe". The nature of enforcement action is guided by previous performance and/or associated danger. Generally speaking, the actions taken can be classified as "advice" or "direction". Section 37(a) when applied in metalliferous mines and Section 63 when applied in coal mines include stop work direction or prohibition, and, as shown in the table below, these are used much less frequently than other actions.

The numbers of written advice and notices issued in the last 5 years are shown in the table below:

	METALLIFEROUS & EXTRACTIVES				COAL	
	Section 36 (a)	Section 36 (b)	Section 37	Section 37(a)	Section 61	Section 63
1999/00	0	1	6	1	308	36
2000/01	0	54	6	2	237	29
2001/02	0	54	8	1	164	31
2002/03	0	104	6	3	125	31
2003/04	0	122	9	4	128	12

All of the sanctions available to WorkCover are potentially available to the mining industry under the OH&S Act.

Under the new mining legislation it is proposed that “mining” inspectors will use powers of inspectors under the OH&S Act.

Prior to commencement of the new mining legislation the DPI proposes to take steps to train DPI inspectors in the use of powers under the OH&S Act, to appoint them under that Act, and to put in place necessary delegations.

Implementation of enforcement policy

There has been a considerable divergence of views amongst key stakeholders on the existing enforcement policy and its implementation (or lack thereof).

To improve the operation of the enforcement policy in practice, the Department has prepared an assessment/decision-making tool to determine which matters should be identified for thorough investigation (see Appendix 19b). The process aims to be more transparent and provides for review by those not directly involved in the investigation.

DPI proposes to trial this assessment and decision making tool.

There is lot to be learnt from other industries in enforcement policy and implementation. A well regarded international benchmark in this area is the UK Health & Safety Executive (HSE) enforcement policy and enforcement management model (see www.hse.gov.uk/enforce/). This provides a process which could be a useful example for further developing the New South Wales system.

The 1997 Mine Safety Review and the Gretley Inquiry established the need for a Departmental enforcement policy, including prosecution, and a more proactive implementation. Whilst the Review acknowledges there has been significant progress in this area, a clear long-term strategic focus remains to be achieved.

The Review considers that there appears to be a gap in the compliance sanctions of the DPI enforcement practice - between the issuing of notices and full-scale prosecutions. Infringement notices (ie “on the spot fines”) could fill this gap, if carefully administered (ie to avoid a “parking ticket approach”) and entailing penalties of sufficient size.

The Review's necessarily limited examination of the enforcement policy and the attitude of stakeholders towards the policy has not enabled any firm conclusions to be drawn. However, it does indicate a need for further investigations of a range of matters relating to enforcement.

These matters include:

- Progress towards prosecution of systematic failures and “near misses”.
- Progress on making other sanctions available to inspectors - eg. issuing provisional infringement notices (PINs) and removing accreditation (“tickets”) from statutory officials for serious breaches.

The Review finds that there has been a wide divergence of views presented to it about the current enforcement policy and process. This divergence illustrates a core of distrust between unions and the corporate mining industry on this issue. The Review considers this issue to be of fundamental importance to mine safety in New South Wales and warrants careful, detailed examination. Further, whilst the core of distrust exists, there is little likelihood of the stakeholders agreeing upon an acceptable enforcement policy and process.

The Review recommends the formation of a Board of Inquiry by the Minister under Section 94A of the Coal Mines Regulation Act 1982, to examine the issue of enforcement policy and the processes used to implement the policy.

The Review recommends that the Draft Terms of Reference for the Board of Inquiry include the following:

- ***the adequacy of the legislative framework for mine health and safety enforcement policies;***
- ***the role of the DPI Inspectorate, including the qualifications and experience of staff, resourcing and training;***
- ***the implementation of policies, including developing a strategic approach to enforcement with a view to long-term improvement in compliance;***
- ***the range and application of sanctions available to inspectors, and if inadequate, sanctions that might apply;***
- ***the role of employers, unions and DPI in enforcement of breaches under the relevant legislation;***
- ***the adequacy of monitoring and reporting systems;***
- ***prosecutions; and***
- ***benchmarking the policies and practices of comparable mine health and safety agencies.***

DPI capacity to regulate safety management systems

DPI regulates safety at coal, metalliferous and non-coal mines (which have leases under the *Mining Act 1992*) and extractive resource operations (quarries). Large mines may employ up to several hundred persons, and small mines range down to 1 or 2 persons operations. There are over 50 coal mines (covered by coal mine safety legislation), and about 50 large metalliferous and non-coal mines, and quarries (covered by the separate mine safety legislation). There are an estimated 750 small mines and quarries registered in the DPI database, plus a number of other local council-related operations (mainly gravel pits), widely distributed throughout the State. There are also a large number of opal claims at Lightning Ridge and White Cliffs - over 6,000 - with about 1800 active at any one time (mainly around Lightning Ridge).

Appendix 4 summarises the numbers, activities and roles of inspectors and mine safety officers. The discussions the Review had with inspectors suggest that staffing levels have significantly dropped in the last ten years (albeit coinciding with mine number reductions and management consolidation in many coal mines). The inspectors suggest when the current establishment level of positions in the Inspectorate is fully staffed, that a satisfactory level of mine inspections could be achieved.

Since 1997, supplementary funding to enhance safety programs of over \$3 million per year has increased the budget of the Inspectorate by about 25% in that period. It was about \$11.4 million in 2003/2004.

As previously mentioned, the unions have been critical of the DPI capacity and willingness to enforce risk assessment and risk management processes or compliance with internal safety management systems. DPI inspectors rebuffed this assertion. The Review is not in a position to assess the validity of this criticism one way or the other. The claim is of serious concern, if substantiated. The effective implementation of OH&S systems by companies is critical in achieving a safe industry, and the inspectorate must have the capacity to effectively check that these systems are being implemented in practice. Therefore the Review considers the capability of the Inspectorate requires further consideration.

The Review considers that an important role of the inspectorate is to check companies' arrangements for the management of safety. This is usually done by a variety of processes generally referred to as "auditing". It is sometimes suggested that regulators which lack in-house expertise to evaluate safety management plans could contract out this task to external safety consultants. In the opinion of the Review this is not good practice for a number of reasons. Auditing is but one of the key processes regulators use to oversee a company's compliance with the law. Incident investigation is also a valuable tool and if the practice of audit is separated from incident investigation, regulators who adopt this approach do not build up their own expertise and are unlikely to be able to investigate incidents

effectively. Furthermore, as greater emphasis is put on assessing safety management plans and systems, if the regulators are insulated from first hand experience of how these plans are implemented at the worksite they cannot do the assessment task properly in the first case. In any event it is difficult to see how the regulator can build trust and respect with managers and the workforce if they are not present regularly at the sites seeing how safety is implemented in practice.

A further difficulty is that there are so few appropriate expert consultants in this field that it may be difficult to find consultants who have not participated in the development of the safety management system which is to be assessed, or otherwise have worked for the company (and therefore potentially have been "captured").

In terms of the need for companies to conduct internal audits of their systems and management plans, larger mining companies have the opportunity to bring in staff from their other mines to carry out auditing, while smaller companies simply have to make resources available internally.

One issue apparent to the Review, and an issue for which the Review was not in a position to investigate in detail, is the apparent "disconnect" or "disjunction" between corporate management systems/plans and their translation to a working level at the "coal face". Some DPI inspectors claim that many companies implement systems and monitor systems' performance poorly, while unions claim that DPI inspectors do not perform their duties of ensuring compliance in this area rigorously enough. The viability and sound performance of mine safety management systems is of critical importance. The Review believes regular visits by competent inspectors actively checking (albeit on a selective basis) companies' implementation of their own management systems will help ensure these systems work in practice – to the benefit of all.

The unions have raised concerns with the extent to which inspectors make contact with unions and worker representatives during mine visits. If their audits are to be effective they must talk to a wide variety of people, especially those "at the coal face." In this way inspectors can learn about what happens when they are not on site and obtain a more rounded picture of how systems are implemented.

At present there appears to be no formal requirement under mine safety legislation or Department policy for such contact to be mandatory. This is a serious deficiency in the view of the Review as it breeds mistrust. In Victoria, by way of contrast, OH&S inspectors are obliged to make contact with worker representatives. A recent inquiry (Ritter, 2004) into BHP Billiton mining activities in Western Australia also saw failure to consult with worker representatives as a serious problem.

The unions submitted that there is a perception of a conflict of interest in DPI between those functions of DPI seeking to develop the industry and those seeking

to regulate safety in it. DPI has submitted that Divisions and branches in the Department have quite separate functions and operations, notwithstanding that inspectors may give feedback to other groups about mine planning and resource utilisation. While the issue of "pro-mining" development is undoubtedly a background reality, the dominant and overarching function of inspectors is safety. The Review has not found that there is a conflict – it notes however that in many Australian and overseas OH&S jurisdictions it is considered best practice to have a real separation of functions. This is an issue that will need continued monitoring in the longer term.

The Review recommends that inspectors must regularly check (monitor, audit, inspect, observe) the implementation of companies' own risk management plans and safety management systems in general. Such a process must involve consultations with the workforce.

The Review recommends that MSAC undertake, as a priority, examination of the apparent "disconnect" between some company management systems/plans and the translation of such systems/plans to a working level (at the "coal face"), and that MSAC in addressing this extremely important issue seek a collaborative industry response.

Training of Inspectors

Inspectors and Mine Safety Officers (MSOs) are recruited to DPI trained in their relevant discipline of mining, mechanical, or electrical engineering, and with appropriate experience in the industry.

DPI provides specific training in relation to legislation, use of powers, assessment, auditing, investigations policies and procedures – for example, all metalliferous and extractives inspectors and MSOs have had formal training in General Rule verification assessment.

Over recent years considerable effort has been given to training in relation to legislative change, powers of inspectors and the conduct of formal investigation to a criminal standard.

One of the more recent areas of training has been in the area of conducting audits and assessments. All inspectors and MSOs have been trained by Quality Society of Australia (QSA) accredited audit trainers (Audit Services International) to be able to apply to QSA as an auditor. They are trained to have knowledge of the application of management systems relevant to OH&S, and to establish audit strategies.

The Review considers, because of changing approaches to mine safety management, that the training and leadership development of regulatory officers in the Inspectorate requires enhancement. The ongoing training and development should include regular opportunities for communication exchanges with industry peers and other inspectors, including from WorkCover.

The Review has noted that an investigation into the functions and performance of mines inspectors in Queensland is currently being carried out and the results of this investigation when available, will be of direct relevance to the New South Wales mines inspectors. The Review has also noted that the existing culture of New South Wales mines inspectors is to remain as independent as possible from WorkCover inspectors. Some interaction, collaboration and benchmarking with these inspectors could well be useful.

The Review recommends that the role of the DPI Inspectorate be supported and strengthened by:

- 1. Allocating resources to enhance or replace current data systems to help maximise efficiency of inspectors' duties.***
- 2. Ensuring the DPI Inspectorate is adequately staffed and adequately resourced and funded.***
- 3. Ensuring adequate training is provided in the regulation of risk-based management systems with an emphasis upon strict compliance with safety obligations.***
- 4. Ensuring that during worksite visits inspectors make contact with, and hold discussions with, workers and their representatives; monitor the presence and activities of representative mechanisms; and monitor consultation and input into risk assessment.***

5.6 Consider ways and make recommendations as to how the New South Wales mining industry safety culture could be improved

The mining industry's safety culture has evolved markedly over recent years as it has accepted accountability for duty of care. Industry leaders now believe that injuries are preventable. They recognise the significance of safety as a profit centre and not a loss centre, and embrace progress towards a "triple bottom line" culture. Site consultation mechanisms, where developed, can display a much higher level of understanding and capability to manage risks than when OH&S committees were first mandated.

Appendix 20 (adapted from the DPI submission) contains a review of the NSW mining industry safety culture.

As mentioned previously the NSW mining industry at this time is part of the way along a "journey", from prescriptive Acts and Regulations to a more enabling style of legislation where methods of analysing and managing risks are required.

The journey requires all persons to take ownership of the need to consider hazards, risks and controls in their activities. This is a huge change from the compliance mentality of the 1980s and early 1990s.

The journey has changed the culture of the mining industry dramatically and positively over the past 10 years. At this point, the journey requires careful consideration of a number of issues such as:

- Recognition and definition of the unions role in the future enabling regulatory approach.
- Definition of the government inspectors' functions so that all stakeholders are comfortable that an enabling style of regulation can be monitored effectively.
- Recognition that cooperative resourcing is needed to address issues and, possibly, undertake some regulatory functions.
- Recognition that a more enabling style of regulation may only be suitable for larger minerals operations where appropriate resources are available, thus requiring a "two-tiered" approach or two sets of regulations ("small" and "large" rather than "coal" and "metalliferous").

These issues illustrate the need for new strategic approaches in the revitalised MSAC's 5 year plan.

Changes in the mining workforce (ageing, introduction of new workers, increased use of contractors and temporary workers) also present issues in terms of changing the culture of the industry. For example, the increased use of contractors means more complex chains of command (multiple employers) on worksites and a risk (found in other industries) that OH&S responsibilities are diffused. The departure of older workers means a simultaneous loss of experience as well as opportunities to introduce modern safety culture to the incoming workforce.

In its submission, the NSW Minerals Council (NSWMC) points to CFMEU opposition to behaviour-based safety programs as an example of union obstructiveness to the development of a more positive safety culture. The Minerals Council submission acknowledges behaviourally focused programs are not alone sufficient to improve OH&S, but should be used in conjunction with other programs.

The unions claim that the current behavioural approaches are preoccupied with worker behaviour. The Review considers that behavioural policies are part of an effective OH&S management system, but such programs need to focus on behaviour at all levels within an organisation.

Restoring trust between the corporate mining industry and the unions

The Review has found a stark lack of trust between the major parties in the NSW mining industry.

The NSWMC in its submission portrays the CFMEU as resistant to change, while some individual employers have indicated that their drive for cultural and behavioural change is inhibited by a prosecutorial culture within the Department and union opposition. The unions have stated the tripartite process does not work, accusing both the regulator and the companies of not being worthy of their trust.

With regard to the union submissions and discussions, there are clearly tensions and a lack of trust with the corporate mining industry. Site visits by the Review have indicated that this “lack of trust” may be somewhat less at the workplace of well-managed mines.

The NSWMC submission notes that arguably, trust remains the most significant impediment to safety culture improvement. It claims that in some ways trust may not have improved since the 1997 Mine Safety Review. Some individuals have managed a marked improvement in trust with other individuals across the “us and them” divide. However, the NSWMC states that trust between key groups (mining companies and unions) “has all but disintegrated”.

The NSWMC suggests in its submission necessary actions to restore and remedy the breakdown in trust, including:

- A shared goal to make workplaces and people safer, clearly holding safety as a value.
- Putting ideological issues to one side and dealing with industrial matters in an industrial forum which is independently mediated.
- Engaging in a process to agree on important issues, results, strategies, goals and the design of activities.
- Allocating accountabilities in a proper way so that people feel a sense of responsibility that is recognised positively.
- Reflecting a risk-based systemic approach, monitoring progress and reporting.
- Having a proper review and adjustment process, with all parties being willing and able to go beyond current practices.
- The “Pathway to Safety” of Hudson (2001) being strongly supported.

The Review considers that rather than defining “others” as the problem, there is a need for employers, unions and DPI to look to find concrete ways of promoting a more co-operative approach to OH&S, based on trust and commitment, involving consultation with all levels of the workforce and management. The current industrial relations climate makes this difficult.

The Review also considers that while there is a gulf in the lack of trust between the parties it can only be resolved through a genuine commitment by all stakeholders towards achieving the common goal of zero serious injuries and fatalities. To that end the revitalised Mine Safety Advisory Council (MSAC) can play an important role, and the parties themselves will need to demonstrate their bona fides by supporting cooperative planning and action.

The Review recommends that the revitalised MSAC adopts cooperative planning and action as a guiding principle towards improving mine safety, and encourages all parties to demonstrate their bona fides in this regard.

Workforce consultation

The unions claim that a lack of effective direct worker and union consultation (examples are given) has undermined OH&S management systems, including risk assessment (and cites specific examples to support its case). The unions claimed that contractors are often left out of risk assessment and consultation processes at the workplace.

The international research on OH&S management systems emphasises the critical nature of worker involvement and independent review and auditing in ensuring such programs do not deteriorate into "paper compliance" or worse. There is also a large body of international research suggesting worker "voice" and union presence contributes to enhanced OH&S outcomes.

The Conference of the Chief Inspectors of Mines recently produced a National Mine Safety Framework Implementation Plan which specified that the key features of mining legislation should include *consultative arrangements between management and mine employees with the ability of employees to appoint representatives*.

The Review agrees that workforce participation in the development of safety management plans is vital. This principle is emphasised in most safety management regimes. In this context, National Mine Safety Framework Implementation Plan Discussion Paper, September 2003, states:

"Consultation requires:

- *sharing relevant information about safety and health with employees;*
- *giving employees the opportunity to freely express their views and contribute in a timely way to the resolution of safety and health issues at the workplace; and*
- *valuing and taking the views of employees into account."*

The Review recommends that the NSW mining industry, through MSAC, enhance consultative arrangements between management and mineworkers in accord with the spirit of the National Mine Safety Framework Implementation Plan.

The Review recommends that MSAC commission, as a matter of priority, an expert in the field to conduct an independent assessment of mechanisms for worker consultation, feedback and problem reporting of OH&S problems at the mine site, including:

- 1. The array of mechanisms and their coverage.***
- 2. The role, attitude and involvement of workers, unions, management, worker representatives, contractors and subcontractors.***
- 3. The contribution and effectiveness of these measures in resolving OH&S problems.***
- 4. Effective ways of improving or enhancing existing arrangements.***

Small Mines

The mining industry ranges from operations run by global corporations down to one or two persons. There has been a suggestion that safety management system requirements are too onerous to impose on the smaller operators.

The alternative view is that the complexity of the safety management systems depends on the size and scale of the operation, and very small operations would not require a complex system. All mining operations, regardless of size, should produce a project management plan, but the level of detail required will be determined by the scale, nature and complexity of the operation. The Review considers that, subject to the preceding qualification, safety management requirements should apply to all operations, regardless of size.

The Review has noted that DPI safety initiatives over the last decade for small mines and opal mines in New South Wales appear to have produced positive results.

The Review recommends that DPI should be encouraged to develop and implement more strategic initiatives for small mine safety.

Training in the mining industry

Training in the mining industry is a very broad and important issue which the Review has not been able to examine in any depth. Appendix 21 (adapted from the DPI submission) overviews the basic situation with regard to training in the mining industry.

Training of Check Inspectors

A training day for union-appointed check inspectors has been conducted each year since 1999 to assist check Inspectors in carrying out their role. The program is designed with the CFMEU and is funded by DPI.

The new mine safety legislation specifies the requirement for the training of check inspectors. Check inspectors under the new legislation are also required to be members of the OH&S committee at mine sites.

It is planned to revise the training package for check Inspectors, once the Regulations are implemented. The revised program will deliver a more comprehensive training program which will be based on the new legislation. It will have a module dealing with risk assessment, which is a fundamental component of the new legislation.

6. SUMMARY OF REVIEW FINDINGS AND RECOMMENDATIONS

Review Findings and Recommendations, under each of the Terms of Reference in which they appear in the text, are as follows:

5.1 Review the progress with the implementation of the recommendations of the Mine Safety Review and the Gretley Report

5.2 Consider whether any change in the implementation of these recommendations is required

The Review finds that the majority of recommendations in the 1997 Mine Safety Review and the Gretley Inquiry Report have been carried out. There are however a number of matters, subject of recommendations in the earlier reports, which remain to be dealt with and/or completed. The relevant matters are outlined below.

Safety incentives

The Review considers that the recommendations of the 1997 Mine Safety Review (see Appendix 7), regarding the practice of production bonus payments and safety performance incentive schemes, have not been adequately addressed to date and do warrant further independent investigation.

1. The Review recommends that an independent assessment of the practice of production bonus payments and safety based incentive schemes, be undertaken as a matter of priority, under the direction of the reconstituted Mine Safety Advisory Council (MSAC).

Risk-based legislation

The Review considers that enabling, risk-based legislation has the potential to offer some safety improvement, if combined with effective safety management systems, good communication/feedback, full involvement of all levels of the workforce and an effective regulator. The successful use of systems and plans to manage risk requires that activities be effectively monitored and audited for adherence to the intended systems and plans.

The Review considers the consensus of expert opinion favours a shift to risk-based legislation, but with the retention of prescriptive regulation in particular areas (eg where the safety factor of the risk is uncertain and a careful threshold is required, such as mine gas levels). However, the critical issue is the effective implementation of safety management systems. The shift requires demonstration that risk-based standards are effectively enforced.

Regulations

The fact that Regulations under the new legislation have not yet been made is of concern to all parties. The process has been one of trying to reach consensus as to the content of the Regulations, but after protracted negotiations between the parties on a number of topics (particularly hours of work and contractor management) the process has broken down.

The Review considers that final analysis and determination of both the hours of work and contractor issues can be achieved in the short term, given the stage that consideration and discussion between the parties has reached.

2. The Review recommends that the Regulations, proposed under the Coal Mine Health & Safety Act 2002, should be introduced without delay. In addition, the Review recommends that the introduction of Regulations for the Mine Health & Safety Act 2004 be expedited.

3. The Review recommends that such Regulations require mine owners and operators to involve employees in the development, implementation and monitoring of the systems and plans required by the Regulations.

4. The Review recommends that the new Regulations be subject to further audit and review 24 months after commencement.

Databases

The 1997 Mine Safety Review identified the need to establish a more comprehensive range of reporting and performance measures to more accurately reflect safety performance within the mining industry.

The Review considers the lack of a broader set of performance indicators for mine safety carries with it a number of problems:

- It makes it more difficult to identify where and why OH&S performance is improving or deteriorating.
- The growing use of contractors makes it more difficult to assess both aggregate and mine specific trends in injuries etc., especially where their use has been associated with “under-reporting” of incidents. This has, in turn, implications for OH&S management systems and managing return to work.

5. The Review recommends that the existing COMET data system used by the DPI Inspectorate, and its mine data/indices, should be benchmarked and improved to national and international best practice.

Exposures to health hazards

The Review considers the absence of comprehensive health/hazard exposure indicators is a serious issue requiring urgent attention.

The Review considers that data gathered at mine sites by DPI and Coal Services Pty Ltd should be compatible and able to be cross referenced. The Review considers that much more comprehensive health indices should be developed. Health hazards need to be identified and monitored.

DPI acknowledges that it does not regulate workforce health issues and essentially focuses on safety issues. The Review considers this represents a major unresolved issue. It is widely accepted that regulation of OH&S must include health as well as safety issues, usually under the control of one authority but at the least with central coordination.

6. The Review recommends the responsibility for the regulation of mine health and safety issues be brought together under DPI, rather than by separate agencies as at present.

7. The Review recommends that DPI be responsible for identifying potential mine related health hazards and for monitoring and reporting on such hazards to MSAC and other relevant agencies.

8. The Review recommends that DPI, in conjunction with other relevant agencies, develop a data base on mine related health indices as a matter of priority.

9. The Review recommends that MSAC progress, as a priority, improved mine related health regulation and monitoring.

5.3 Review the operation of the Mine Safety Advisory Council and the supporting consultative process

While the Mine Safety Advisory Council (MSAC) was established to provide a vehicle for progressing matters on a cooperative basis, all parties expressed concern about the current operation of the Council and its failure to resolve outstanding issues between the parties.

The Review endorses the following proposed actions to enhance MSAC:

1. A need to establish the best consultative structure of MSAC and other related committees, to develop a strategic plan for the NSW industry that outlines the vision and the pathway to achieve the vision over the next 5 years.
2. A need to seek agreement to a decision making process that focuses the committees on safety and health issues, minimising interferences from political or other outside issues.
3. A need to establish a method of defining required work programs through MSAC and other committees with resources to undertake those work programmes derived from the stakeholders.
4. Once MSAC is strengthened and revitalised and its strategic plan is defined, contentious issues such as hours of work, contractors and fatigue management should be further examined and progressed by MSAC.

10. The Review recommends that a new, strengthened Mine Safety Advisory Council (MSAC) should take forward future examination and progression of mine safety and health issues.

The Review considered two main potential models that could be considered for a revitalised MSAC. These are:

- 1) A body similar to the present MSAC but with 2 independent, expert members.
- 2) A body similar to that which operates in Queensland (which has provisions for voting on contentious issues prior to making recommendations to the Minister).

The Review favours the first model for the new MSAC.

The Review considers that the number of employer and employee representatives should be restricted to three each to more readily focus MSAC's deliberations.

The Review considers that the Council adopts a "strategic" position in regard to the mining industry and sets its own priority issues as circumstances change. It also must be seen as a body to which issues can be referred directly from the corporate mining industry or the unions, and be the main conduit for advice on mining health and safety issues to the Minister. The Review considers that MSAC needs to meet more frequently than at present, probably at least six times a year.

Funding and resources for MSAC is an issue which needs addressing.

11. The Review recommends that the structure and membership of the Mine Safety Advisory Council (MSAC) be strengthened by:

- *the appointment of an independent Chairperson, being a person of eminence in the Australian community;*
- *the inclusion of two independent members, expert in occupational health and safety; and*
- *the most senior level of representation from all parties participating in the formal proceedings of MSAC.*

12. The Review recommends that MSAC shall be the vehicle for referral of industry occupational health and safety matters to the Minister, and that the Chairperson of MSAC, after consultation with the Council, shall provide the Minister with MSAC's recommendations on such matters. Failing agreement by the members of the Council, the Chairperson shall provide his/her recommendations on matters to the Minister.

13. The Review recommends that MSAC be empowered with an independent capability to conduct research, commission consultants, process/evaluate submissions from Council members and develop policy recommendations.

14. The Review recommends that MSAC be provided with a secretariat, independent of DPI, comprising a small support team and an Executive Officer appointed by the Chairperson.

15. The Review recommends that MSAC be resourced appropriately to carry out its charter and work program. The Review favours the imposition of a small levy on the coal companies in order to provide financial independence for MSAC, together with the capacity for MSAC to engage independent advisory consultants as required. This levy might also be used to help provide funds necessary to enhance inspectorial resources and mine safety initiatives in New South Wales. At the same time Government would need to give consideration to an appropriate levy system on the metalliferous and extractives sectors of the industry.

5.4 Review and make recommendations in relation to

- (a) the safety performance of contractors;**
 - (b) the broad practice of hours of work and fatigue management;**
- in the New South Wales mining industry**

(a) Contractors

There appears to be a general recognition amongst stakeholders that the growing use of contractors in the mining industry has implications for OH&S that require attention.

The Review considers that the current contractor management arrangements in the new legislation, when implemented, should bring into force a sound regime to manage contractors' safety and health in the mining industry.

Monitoring implementation will be a key role for the DPI Inspectorate. The Review considers that ongoing risk-assessment and monitoring of contractor and subcontractor activities is essential to ensure that they adhere to management plans. In particular, communication and feedback loops for both contractor employees and those working alongside them need to be established so any problems can be identified and rectified.

The Review considers it is important that safety management requirements for contractors and company employees should be the same, to avoid two classes of workers developing on mine sites, with obvious attendant safety problems.

The Review endorses the need for all contractors coming onto a mine site to have participated in a relevant industry-recognised induction scheme.

The Review recognises concerns about the hours worked by contractors at mine sites and the need to more accurately record and monitor this data.

16. The Review recommends that provisions relating to contractor management in the Coal Mine Health & Safety Act 2002 and its proposed Regulations be implemented without delay.

17. The Review recommends that DPI:

- **closely monitor the implementation of contractor management provisions during the initial two years of operation; and**
- **conduct a major audit of the practice, performance and compliance under the new provisions after two years.**

18. The Review recommends that DPI closely monitor and audit contractor management systems and take enforcement action commensurate with the gravity of any breach of the required provisions.

19. The Review recommends that the new MSAC progress the development by industry of systems to more accurately record and monitor hours worked at mine sites by all workers. Such systems could include the use of a computer “swipe card”, “smart card” or similar technology.

(b) Hours of work and fatigue management

The issues of hours of work and fatigue management for mine workers (including contractors) are complex and related. The current legislation (*Coal Mines Regulation Act 1982* and *Mines Inspection Act 1901*) prescribes a maximum daily limit on the number of hours worked in the coal (18 hours) and metalliferous sectors (8 hours except where exemption is granted).

However, the Review found that the legislative prescriptions bear no relationship to current practice in the industry. The Review found such a wide variation between mine sites in the hours of work, shift patterns and approach to fatigue management as to suggest that the current legislation in relation to hours of work is largely irrelevant.

The Review considers there was insufficient evidence presented in submissions received and information obtained from site visits to draw firm conclusions about the pattern of working time arrangements.

Models for working hours

There is a wide divergence of opinions on the issue of hours of work and fatigue management. An approach that takes account of a range of opinions, is to introduce a tiered approach to fatigue management.

The DPI in its submission presents a "hybrid model" of working hours based on a number of recent Australian and overseas approaches to the hours of work issue.

The Review considers that both the hybrid model and the tiered approach are superior to the existing legislation covering hours of work in the NSW mining industry.

The Review notes the shortage of more objective data on the hours of work issue. Because of the conflicting views presented, it is important that a project be undertaken to collect and analyse sufficient data to enable sustainable and justifiable conclusions to be made.

20. The Review recommends that MSAC commission, as a matter of priority, an expert in the field to conduct an independent assessment of the hours of work and fatigue management in the mining industry, involving direct contact with a significant sample of the workforce at all levels.

21. The Review recommends that the results of this research (referred to in the previous recommendation) be directed to MSAC for consideration, leading to recommendations to the Minister, as a matter of the highest priority, in relation to hours of work and fatigue management.

22. The Review recommends that this research should not delay the introduction of the Regulations, proposed under the Coal Mine Health and Safety Act 2002.

5.5 Review the enforcement policy and the processes used by the Department to implement the policy

The Review finds that there has been a wide divergence of views presented to it about the current enforcement policy and process. This divergence illustrates a core of distrust between unions and the corporate mining industry on this issue. The Review considers this issue to be of fundamental importance to mine safety in NSW and warrants careful, detailed examination. Further, whilst the core of distrust exists, there is little likelihood of the stakeholders agreeing upon an acceptable enforcement policy and process.

Since the 1997 Mine Safety Review and the Gretley Inquiry Report, DPI has launched a number of prosecutions. There is wide disagreement amongst employers and the unions in their submissions as to the extent and effectiveness

of these, with the former seeing such prosecutions as unhelpful to developing a more proactive approach to OH&S, while the unions are critical of what they see as inadequate enforcement.

The Review considers that there appears to be a gap in the compliance sanctions of the DPI enforcement practice - between the issuing of notices and full-scale prosecutions.

The Review's necessarily limited examination of the enforcement policy and the attitude of stakeholders towards the policy has not enabled any firm conclusions to be drawn. However, it does indicate a need for further investigations of a range of matters relating to enforcement.

These matters include:

- Progress towards prosecution of systematic failures and “near misses”.
- Progress on making other sanctions available to inspectors - eg. issuing provisional infringement notices (PINs) and removing accreditation (“tickets”) from statutory officials for serious breaches.

23. The Review recommends the formation of a Board of Inquiry by the Minister under Section 94A of the Coal Mines Regulation Act 1982, to examine the issue of enforcement policy and the processes used to implement the policy.

24. The Review recommends that the Draft Terms of Reference for the Board of Inquiry include the following:

- ***the adequacy of the legislative framework for mine health and safety enforcement policies;***
- ***the role of the DPI Inspectorate, including the qualifications and experience of staff, resourcing and training;***
- ***the implementation of policies, including developing a strategic approach to enforcement with a view to long-term improvement in compliance;***
- ***the range and application of sanctions available to inspectors, and if inadequate, sanctions that might apply;***
- ***the role of employers, unions and DPI in enforcement of breaches under the relevant legislation;***
- ***the adequacy of monitoring and reporting systems;***
- ***prosecutions; and***
- ***benchmarking the policies and practices of comparable mine health and safety agencies.***

DPI capacity to regulate safety management systems

One issue apparent to the Review, and an issue for which the Review was not in a position to investigate in detail, is the apparent "disconnect" or "disjunction" between corporate management systems/plans and their translation to a working level at the "coal face". Some DPI inspectors claim that many companies implement systems and monitor systems' performance poorly, while unions claim that DPI inspectors do not perform their duties of ensuring compliance in this area rigorously enough. The viability and sound performance of mine safety management systems is of critical importance.

25. The Review recommends that inspectors must regularly check (monitor, audit, inspect, observe) the implementation of companies' own risk management plans and safety management systems in general. Such a process must involve consultations with the workforce.

26. The Review recommends that MSAC undertake, as a priority, examination of the apparent "disconnect" between some company management systems/plans and the translation of such systems/plans to a working level (at the "coal face"), and that MSAC in addressing this extremely important issue seek a collaborative industry response.

The Review considers, because of changing approaches to mine safety management, that the training and leadership development of regulatory officers in the Inspectorate requires enhancement. The ongoing training and development should include regular opportunities for communication exchanges with industry peers and other inspectors, including from WorkCover.

27. The Review recommends that the role of the DPI Inspectorate be supported and strengthened by:

- 1. Allocating resources to enhance or replace current data systems to help maximise efficiency of inspectors' duties.***
- 2. Ensuring the DPI Inspectorate is adequately staffed and adequately resourced and funded.***
- 3. Ensuring adequate training is provided in the regulation of risk-based management systems with an emphasis upon strict compliance with safety obligations.***
- 4. Ensuring that during worksite visits inspectors make contact with, and hold discussions with, workers and their representatives; monitor the presence and activities of representative mechanisms; and monitor consultation and input into risk assessment.***

5.6 Consider ways and make recommendations as to how the New South Wales mining industry safety culture could be improved

Restoring trust between the corporate mining industry and the unions

The Review has found a stark lack of trust between the major parties in the NSW mining industry.

The Review considers that rather than defining “others” as the problem, there is a need for employers, unions and DPI to look to find concrete ways of promoting a more co-operative approach to OH&S, based on trust and commitment, involving consultation with all levels of the workforce and management.

28. The Review recommends that the revitalised MSAC adopts cooperative planning and action as a guiding principle towards improving mine safety, and encourages all parties to demonstrate their bona fides in this regard.

Workforce consultation

The Review agrees that workforce participation in the development of safety management plans is vital.

29. The Review recommends that the NSW mining industry, through MSAC, enhance consultative arrangements between management and mineworkers in accord with the spirit of the National Mine Safety Framework Implementation Plan.

30. The Review recommends that MSAC commission, as a matter of priority, an expert in the field to conduct an independent assessment of mechanisms for worker consultation, feedback and problem reporting of OH&S problems at the mine site, including:

- 1. The array of mechanisms and their coverage.**
- 2. The role, attitude and involvement of workers, unions, management, worker representatives, contractors and subcontractors.**
- 3. The contribution and effectiveness of these measures in resolving OH&S problems.**
- 4. Effective ways of improving or enhancing existing arrangements.**

Small Mines

The Review has noted that DPI safety initiatives over the last decade for small mines and opal mines in New South Wales appear to have produced positive results.

31. The Review recommends that DPI should be encouraged to develop and implement more strategic initiatives for small mine safety.