CONFERENCE OF CHIEF INSPECTORS OF MINES

NATIONAL MINE SAFETY FRAMEWORK IMPLEMENTATION PLAN

DISCUSSION PAPER

Shearer operator at Anglo Coal's Dartbrook Mine, New South Wales
Courtesy Anglo Coal

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TABLE OF CONTENTS

COMPANION VOLUME : *NATIONAL MINE SAFETY FRAMEWORK IMPLEMENTATION – BACKGROUND AND EXPLANATORY NOTES*

OVERVIEW

Safety in mining operations and the health of mine workers is of the utmost priority for industry and for governments.

While the primary responsibility for safety and health rests with the industry parties, governments have a crucial role in ensuring their delivery. Governments' role encompasses the full spectrum of issues impacting on safety and health, from the legislative framework, competency support, compliance and enforcement issues through to data collection and research.

Against this background, the Ministerial Council on Mineral and Petroleum Resources agreed in March 2002 to a National Mine Safety Framework — *Realising a Safe and Healthy Mining Industry – the Contribution of Government* — and commissioned officials to prepare, in consultation with stakeholders, a detailed and practical plan for its implementation.

Nationwide consistency in approach to safety and health in mining offers many benefits, not least enhanced confidence within the industry in addressing statutory requirements and cost-effectiveness in implementing them. At the same time, the Framework's implementation strategy must allow for flexibility within individual jurisdictions in dealing with specific mine safety and health issues and solutions.

Further, recognising the pace of change both in mining technology and practice and in occupational health and safety policy and practice, the implementation strategy must provide not only the opportunity but also encouragement for individual enterprises to go beyond basic measures to find better, more innovative and effective mine safety practices.

Mine Safety and the *National OHS Strategy 2002-2012*

While enhanced safety in the mining industry is critical in its own right, it needs to be considered also in the context of broader national efforts to improve occupational health and safety.

In May 2002, the Workplace Relations Ministers Council released the *National OHS Strategy 2002-2012*. Under this *Strategy*, all jurisdictions, together with the Australian Chamber of Commerce and Industry and the Australian Council of Trade Unions, committed themselves to working together to implement interventions to dramatically improve Australia's occupational health and safety performance over the next decade and to foster sustainable, safe and healthy enterprises that prevent work-related death, injury and disease.

The *Strategy* sets national targets as a step towards achieving its vision of Australian workplaces free from death, injury and disease. The initial national targets are:

- sustain a significant, continual reduction in the incidence of work-related fatalities, with a reduction of at least 20 per cent by 30 June 2012 (including a reduction of 10 per cent being achieved by 30 June 2007); and

- reduce the incidence of workplace injury by at least 40 per cent by 30 June 2012 (with a reduction of 20 per cent being achieved by 30 June 2007).

The *Strategy* identifies five key national priorities to be addressed in pursuing these targets:

- reduce high incidence/severity risks;
- improve the capacity of business operators and workers to manage OHS effectively;
- prevent occupational disease more effectively;
- eliminate hazards at the design stage; and
- strengthen the capacity of government to influence OHS outcomes.

There are, appropriately, close linkages between these priorities and the goals of the National Mine Safety Framework. There are also close similarities between the areas identified in the *Strategy* as requiring national action — OHS data, research, national standards, strategic enforcement, incentives, compliance support, practical guidance, OHS awareness and OHS skills — and the specific actions proposed in the Framework.

The implementation of the *National OHS Strategy* — which establishes minimum national OHS performance targets across all industries — does not obviate the need for specific action in the mining industry. Rather, it places the mining industry, with its more stringent targets, at the forefront of national occupational safety and health endeavour. Further, it provides an ideal basis for cooperation with, and an opportunity to draw on the expertise of, the National Occupational Health and Safety Commission in the shared goal of achieving safer and healthier workplaces.

Importance of stakeholders' views

Achieving an appropriate balance between nationwide consistency and local flexibility is critical. The views of the industry and other key stakeholders are central to this process. The purpose of this document is to stimulate discussion and encourage all of those with an interest in this industry to afford the Conference of Chief Inspectors of Mines the benefit of their expertise. Identifying aspects of safety and health administration where stakeholders have experienced inconsistencies between jurisdictions will be particularly important in this context.

Following a period of consultation and in the light of consultation outcomes, the Conference will refine the implementation plan and present it to the Ministerial Council, through its Standing Committee of Officials, for consideration and eventual promulgation.

The Conference expects the implementation plan's development to be completed by the end of 2003.

Further information on the Conference of Chief Inspectors of Mines is provided in the Appendix

EXECUTIVE SUMMARY

The overall goal of the National Mine Safety Framework Implementation Plan is to achieve a uniform nationwide approach to mine safety.

Consistency in approach is central to an efficient and effective strategy:

- it enhances industry confidence in a clear and unambiguous approach to mine safety issues across the nation;
- it provides an opportunity for removing duplication, thereby reducing the costs of compliance and administration for both industry and government; and
- it provides an environment within which further innovation and improvement can be fostered collaboratively and cost-effectively.

The approach adopted in this paper also acknowledges that primary responsibility for a safe mining industry rests with the industry itself, at both management and workforce levels. Governments do not seek to interpose themselves into the detail of mine safety management; rather, they seek to complement it by providing an effective and well understood framework within which individual enterprises and the industry as a whole can work with confidence.

An effective national strategy for mine safety is critical in its own right. However, it cannot be seen as a totally separate entity from overall national occupational health and safety goals. The National Mine Safety Framework Implementation Plan is therefore being developed against the background of, and is intended to be consistent with, the *National OHS Strategy 2002-2012*.

Similarly, the development of the Implementation Plan provides an opportunity to examine good practice internationally. In particular, it provides an opportunity to align Australia's legislative approach with that articulated by the International Labour Organisation in its *Convention 176 : Safety and Health in Mines*.

Australia is not yet in a position to ratify this Convention, principally because Australia's treaty policy requires that there must first be full compliance with the principles set out in the Convention in all relevant legislation. At present, this is not the case. A more uniform approach to mine safety legislation provides the opportunity to address such matters, not only enhancing consistency within Australia but also allowing all jurisdictions to inform the Commonwealth Government of their formal agreement to ratification.

Effective communication and consultation, shared information, advisory materials and services, the collation, analysis and sharing of data and research and the exploitation of centres of expertise outside of the mining industry and relevant Ministries are also all central to an efficient and cost-effective approach to mine safety. Opportunities to improve on current practice in all of these areas are common themes throughout this document.

The National Mine Safety Framework (NMSF) approved by Ministers identified seven key strategies. The detailed approach to implementing each of them is outlined below.

NATIONALLY CONSISTENT LEGISLATIVE FRAMEWORK

Intent : To provide a nationally consistent legislative framework that protects the safety and health of mine employees and persons who may be affected by mining operations.

The NMSF identified that a nationally consistent legislative framework is essential for an efficient, effective and equitable regulatory system in each jurisdiction. This does not mean that legislation should be identical, but rather that each jurisdiction should follow established key principles. As a minimum, the legislation should incorporate the intentions of the *International Labour Organisation Convention 176 "Safety and Health in Mines"* (ILO C176), while not necessarily incorporating its detailed provisions.

Legislation adopted should provide ways to regulate the safety and health practices at mines, ranging from those employing the most modern and sophisticated safety management practices and technology, to small mining operations operated by just a few people using basic equipment and methods.

Key features of legislation should include the following:

- detailed duty of care obligations for all those involved at the mine, including owners, managers, employees, suppliers and providers of services, with the level of obligations being appropriate to the degree of responsibility held;
- the principle that the management of safety and health should be undertaken using modern risk management practices;
- incorporation of safety and health management systems;
- consultative arrangements between management and mine employees with the ability of employees to appoint representatives;
- reporting and investigation of accidents; and
- requirements for emergency response.

COMPETENCY SUPPORT

Intent :To support and promote continuous skills development and competency within a national context.

Governments require that people working on mine sites are competent to perform their tasks. They also have a role in auditing the mine management systems used to ensure the competence of all workers, including contractors. In some jurisdictions, specific positions have been defined as statutory, requiring regulation or administration of the competence evaluation process.

OHS and related competency standards available in training packages developed by registered training organisations and advisory bodies are likely to eventually replace the certification system currently conducted in some States for statutory positions. (This is already occurring in Queensland.)

Such a transition would occur over time and in consultation between jurisdictions and the organisations responsible for approving and delivering national training packages.

The action plan proposed by the Conference of Chief Inspectors of Mines (CCIM) is to maintain current certification processes in the interim and explore their transition to a comprehensive training system that supports innovation and competency development for statutory functions, consistent with the National Training Framework and in discussion with the Resource Industries and Infrastructure Skills Council. A joint Queensland/New South Wales working party, supported by the resources of the CCIM, is addressing these transition issues for statutory positions, recognising the need for portability of competency assessments regardless of the assessment mechanism.

A structured national approach (audit/verification tool) might also be developed for regulators to assess how mine management ensures the competence of their employees.

COMPLIANCE SUPPORT

> **Intent : To develop a national approach to providing advisory information for duty holders to assist them in achieving compliance, recognising varying needs among individual mines.**

Governments have an important role in improving the flow of information on safety and health in the mining industry, including offering advice. It is not their role to be the font of all knowledge; mines are in a far better position than government agencies to address their risks. However, governments have a central function in analysing safety trends, coordinating the development of industry standards and compiling an industry 'body of knowledge'.

A nationally coordinated approach is proposed. In the first instance, existing guidance material which supports and facilitates compliance will be rationalised, and a national format and approach developed. Its relationship to legislation will need to be spelt out.

A means of coordinating the development of guidance information across the nation will also need to be developed. Efficient production of, responsibility for, access (including electronic) to, improvement of, extensions to and responding to feedback on compliance support material, as well as the shared development of assessment or evaluation tools, are all issues to be addressed.

A national approach to measurement of compliance should also be considered.

NATIONALLY CO-ORDINATED PROTOCOL ON ENFORCEMENT

> **Intent : To develop a nationally consistent approach to enforcement, which provides clear and consistent standards for duty holders, and supports equitable outcomes from governments' contribution to safety and health in the mining industry.**

To realise consistently applied strategies for enforcement and a uniformly graded approach to assuring compliance across jurisdictions, a protocol incorporating the fundamental policy principles and procedures of the individual jurisdictions is proposed. Discussion on enforcement in this paper is presented in the form of a draft protocol.

The protocol is based on the premise that enforcement of the provisions of mining safety legislative and non-legislative measures would be undertaken by jurisdictions within a framework of escalating alternatives designed to deal as swiftly as possible with successively more serious circumstances.

It would include the enforcement of subsidiary legislation (regulations) and the administration of standards expressed or implied in non-legislative provisions such as codes of practice, licences, approvals, certificates and guidance material, which may be invoked or applied under legislation.

DATA COLLECTION

Intent : To develop a nationally consistent and reliable safety and health data set, in partnership with the National Occupational Health and Safety Commission (NOHSC), which meets the needs of the minerals industry and enables comparison across jurisdictions and industries.

Data on safety and health held by mines inspectorates are not consistent because of differing legislative requirements. A reliable and consistent national safety and health data set would provide the mining industry with an effective means of determining the nature and extent of safety and health issues and associated trends, and allow for the development of more targeted preventative strategies.

Mining related safety and health data are included in the National Occupational Health and Safety Commission's National Data Set (NDS). This allows for the production of nationally comparable workers compensation based data. The NDS, however, is not comprehensive because injuries that result in absences of less than five days and diseases of long latency are excluded. The lack of standard reporting criteria, definitions, guidance materials and training for all stakeholders also hinders the consistency of data collection and analysis.

To provide reliable and consistent data for the mining industry, a draft national safety and health data collection protocol, incorporating collection, analysis, storage, dissemination and the development of guidance materials, is proposed. This will need to be developed progressively to suit government and site mechanisms for collection, analyses and reporting. Types of data to be collected include the following.

- *Outcome data*. Sufficient information should be obtained from outcome data to identify trends to assist in the development of OSH priorities
- *Positive performance measures*. These data are needed to develop strategies to effectively influence individual and organisational behaviour and to target activities which enhance the identification, evaluation, elimination and management of hazards in the workplace.
- *Critical Incident Data*. A coordinated approach to collecting and analysing these data are needed to help identify trends, implement preventative strategies and target research priorities.

CONSULTATION

Intent : To establish an effective national approach to consultation with stakeholders and between jurisdictions in relation to safety and health the mining industry

Each State and Territory has legislated for the involvement of employers and employees in managing safety and health of workers at mine sites. Guidance information for consultation more generally has been developed in some jurisdictions.

Several States have well-developed tripartite arrangements for consultation. States have used the principles of consultation in developing codes of practice and the like for their mining industries. Some standardisation of practices across the jurisdictions would be of benefit, and it is proposed to promote the notion of, and to work towards, standardising practices and terminology across jurisdictions, consistent with the *National OHS Strategy 2002–2012* while addressing the specific needs of the minerals industry.

There is a range of state and national bodies involved in safety and health initiatives in relation to the mining industry. Some coordination and reduction in the potential for duplication of effort and information, which complements and adds to but does not usurp the roles of these bodies, would be beneficial.

Based on the above, it is proposed that a possible structure and role for a peak consultative group on safety and health matters in mining be explored as a mechanism for national consultation.

RESEARCH

Intent : To establish appropriate mechanisms for governments to support effective research into OSH in the mining industry.

Governments have an important part to play in ensuring that continuing advances in mining safety and health benefit from ongoing research.

This role does not necessarily encompass direct sponsorship of specific R&D projects, particularly those that are undertaken by companies primarily for competitive reasons. It is a matter for companies and organisations to determine how best to avail themselves of broader Government R&D support mechanisms.

Governments' encouragement of research should be directed more towards basic or strategic research needs and the application of research findings; to discern research trends from the patterns of current projects and to use the knowledge of current research and statistical analyses to help determine ongoing research priorities.

This discussion paper canvasses briefly possible mechanisms for government to encourage effective research into OSH in the mining industry. It reflects also the importance attached to research in the National OHS Strategy 2002-2012.

Details of current research projects and website addresses for the organisations involved have been collated and are incorporated in the companion volume *Background and explanatory notes*.

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SUMMARY OF RECOMMENDED ACTIONS

NATIONALLY CONSISTENT LEGISLATIVE FRAMEWORK

1. A consistent legislation protocol, developed by the CCIM, be subject to consultation with all stakeholders.

2. The legislation protocol, as revised following consultation, be adopted nationally by the MCMPR and form the basis for Occupational Safety and Health (OSH) legislation in individual jurisdictions. Specifically,

   (i) Each jurisdiction to identify the areas of non-compliance with ILO C176 and, where non-compliance exists, bring its legislation into compliance by April 2004.

   (ii) Each jurisdiction to submit a request to the Federal Government by June 2004 for ratification by Australia of the *International Labour Organisation Convention 176: Safety and Health in Mines*.

   (iii) Conference of Chief Inspectors of Mines to obtain Ministerial Council agreement on key principles of the legislative framework and on a timeframe (within 5 years) to make substantial progress on reducing areas of difference across jurisdictions.

   (iv) Conference of Chief Inspectors of Mines to identify specific areas of differences in the approaches in each jurisdiction and to establish working parties to address these in accordance with the approach and within the time agreed by the Ministerial Council.

COMPETENCY SUPPORT

1. In addressing OSH competency from a regulatory viewpoint, a structured national approach (audit/verification tool) be developed and trialled for use by regulators in evaluating mine systems for staff competencies.

2. The joint Queensland/NSW working party addressing issues arising from the move to industry-based assessments of competency for statutory position-holders be supported.

3. Consultations be undertaken in each jurisdiction on wider strategic directions, under the overall co-ordination of the working party, to identify specific issues requiring resolution within an appropriate timeframe as industry-based assessments of competency are progressed.

COMPLIANCE SUPPORT

1. A working party be established to nationally coordinate the development of a range of guidance information, to improve its availability, and to incorporate ‘lessons learned’ from incidents.

2. As a first priority, a national Handbook of Mine Safety be published.

3. A strategy for measurement of compliance and use of related evaluation tools be pursued by CCIM as a matter of priority, while undertaking key policy developments related to compliance support. An example of a key policy development is a clear statement relating to the advisory role of governments.

NATIONALLY CO-ORDINATED PROTOCOL ON ENFORCEMENT

1. The uniform enforcement protocol, developed by the CCIM, be subject to consultation with stakeholders in each jurisdiction.

2. The enforcement protocol, as revised following consultation with stakeholders, be recommended for adoption nationally by the MCMPR and form the basis for consistent enforcement activity in individual jurisdictions.

DATA COLLECTION

1. A working party with members drawn from all jurisdictions, CCIM, NOHSC and key industry groups be established to develop a consistent national framework for the collection and management of mine safety and health data.

2. The framework address, inter alia, a consistent approach to data definitions, collection, storage, transmission, retrieval and access, to be developed and implemented across jurisdictions.

CONSULTATION

1. A consultative model/process be designed, to provide a consistent nationwide basis for all stakeholders to address workplace safety and health in the mining industry.

2. The structure and role of this consultative framework be canvassed initially with key stakeholders, with a view also to compatibility with the National OHS Strategy 2002-2012.

RESEARCH

1. A national approach to government support of OSH research be the subject of stakeholder discussion and include consideration of priorities and appropriate mechanisms for encouraging such research.

2. Existing jurisdictional mechanisms be utilised to identify research topics, with the CCIM coordinating and reporting on this process, and developing a mechanism for linking research findings with guidance information..

STRATEGY 1
NATIONALLY CONSISTENT LEGISLATIVE FRAMEWORK

INTRODUCTION

The purpose of this strategy is to provide a basis for the development of a nationally consistent legislative framework to protect the safety and health of persons working in mines and persons who may be affected by mining operations.

Variations in legislation in each State dealing with the same issues have always been of concern to the mining industry in Australia. Occupational safety and health is one of these issues. Reasons for the variations include differences in coverage of the legislation (i.e. mines only, mines and quarries, smelters and general industry), format of the legislation itself, inconsistencies in definitions, and approaches to compliance.

The National Mine Safety Framework, *"Realising a Safe and Healthy Mining Industry – The Contribution of Government"*, recognised that one of the goals to support safety and health across the mining industry is a consistent legislative framework based on *"duty of care"*.

A nationally consistent legislative framework is essential for an efficient, effective and equitable regulatory system for industry. This does not mean that the legislation should be identical in each jurisdiction. Indeed, this may not be feasible. Rather, the discussion below suggests an agreed framework that is consistent with the requirements of the *International Labour Organisation Convention 176 "Safety and Health in Mines"* (ILO C176) — while not necessarily incorporating its specific provisions — and that includes the following key features:

- general duty of care approach;
- a systematic approach to mine safety management;
- mechanisms for effective consultation;
- risk management approach to the control of mining hazards;
- consistent and clear definition of terms; and
- development by duty holders of the most effective safety and health strategies for their circumstances.

It also suggests an implementation program that includes ratification of ILO C176 by Australia, agreement by the Ministerial Council on Mineral and Petroleum Resources on the key principles of the framework, and a time frame for reduction of areas of difference between the States.

KEY PRINCIPLES

Legislation should provide ways to regulate the safety and health practices at mine sites ranging from those using the most modern and sophisticated safety management

practices and technology to basic mining operations with a minimum number of persons using basic equipment and methods.

To ensure that the safety and health of persons situated on or near mines sites is protected to the highest degree possible, it is important the legislation incorporates the following key principles:

[Note: Links to ILO Convention 176 are referenced against the relevant key principle headings. The full text of the Convention is provided in the companion volume *Background and explanatory notes*]

Objectives
The legislation should clearly state its objectives and the ways in which these objectives are to be achieved.

Dictionary
A comprehensive dictionary covering all major terms used in the legislation should be included.

Control and management of risk *(Article 6)*
The legislation should encompass the principle that the management of safety and health should be undertaken using risk management practices.

All mining operations should be conducted such that risks are managed to an acceptable level, that risks are managed using modern risk management practices and that risks encountered are as low as reasonably achievable. The risk management process should include hazard identification, risk analysis, risk reduction and risk monitoring. The hierarchy of hazard controls in the order of elimination, substitution, separation, engineering controls, administrative controls and personal protective equipment should be used.

Particular attention should be given to core risks of the industry, ensuring that high consequence/low probability events are addressed.

Obligations *(Article 7(a) and (b); article 14)*
The obligations of all persons covered by the legislation should be detailed.

Persons having obligations should range from the highest executive in a mining company to the individual mine worker and should include those persons such as manufacturers, designers and suppliers of equipment and providers of services whose actions could affect the safety and health of persons at mine sites.

The level of obligations imposed should be appropriate to the degree of accountability and responsibility held.

The legislation should clearly state how obligations of persons are to be fulfilled.

Duty of care should be framed such that obligations not only reside with on-site personnel but also with executive officers of the companies who may influence mine site safety and health.

Management ***(Article 5.2(a); article 10(b); article 12)***
The management or supervision section of legislation should cover key functions and responsibilities of mine management.

A key principle is that the employer should be required to appoint the most senior management executive based at the mine site as the person with specified key obligations and responsibilities for safety and health issues at the mine.

Where appropriate, particular functions of key personnel and competencies deemed necessary for such positions should be identified. In particular, depending upon the needs in each jurisdiction, emphasis may need to be placed on key personnel supervising underground mining operations.

Consideration may need to be given to the appointment of replacement personnel in the absence from duty of certain key personnel

Safety management systems
Legislation should require the incorporation of safety management systems that:

- form a documented and auditable system constituting part of the overall management system of the mine;
- define the safety and health policy for the mine and cover such aspects as organisational structure, planning activities, responsibilities, processes and resources, procedures and practices.
- detail methods for developing, implementing, maintaining and reviewing safety and health practices and policy.

Consideration may need to be given to having total safety management systems applicable only to mining operations of a certain size or category.

Consultative arrangements ***(Article 5.2(f); article 13.1; article 15)***
Legislation should provide for consultation processes and the rights of mineworkers to be consulted on safety and health management practices undertaken at the mine. The consultation process should include mine site consultation which can involve safety committees and mine worker representatives. Where appropriate, tripartite state-wide consultation should take place and tripartite industry advisory safety and health councils established.

Mineworker representation ***(Article 13.1(f); article 13.2)***
Provision should be made for mineworkers to be appointed or elected to represent fellow workers in such matters as workers' inspections, involvement in investigations and the formulation of safety and health procedures and policies.

Mineworker representatives have an important role to play in the review of safety procedures, the detection of unsafe practices and the investigation of complaints from mineworkers regarding safety and health issues.

Mines inspectors ***(Article 5.2(b) and (e); article 16(b))***
Legislation should provide for the establishment of a professional and technically competent mines inspectorate with appropriate industry experience and qualifications.

The inspectorate should be provided with adequate powers to enforce the legislation, monitor safety and health performance, inspect and audit mines, provide specialist advice and information, assist during emergencies, direct remedial actions to be undertaken in the event of unsafe practices and to investigate complaints, fatalities, serious accidents, high potential incidents and any other matter relating to the safety and health of mine workers

Accidents and incidents ***(Article 5.2(c))***
Legislation should include provisions for the investigation of accidents and high potential incidents and lay down the means by which such accidents and incidents are investigated and reported upon. The provisions on accidents and incidents should contain details of types of incidents that must be reported to mineworkers' representatives and to the mines inspectorate.

This section should detail which sites should be left undisturbed until investigations are complete or which are allowed to be disturbed with the approval of the inspectorate.

Time frames should be incorporated in the legislation for the reporting of different classes of accidents and incidents.

Health surveillance ***(Article 11)***
Adequate provision should be made to cover the health surveillance of mine workers. The type of health surveillance required will need to consider the types of hazards, the exposure of individuals to hazards and whether any hazardous exposure would result in health deterioration after long term or short time exposure. A broad range of health hazards should be considered.

Emergency response ***(Article 8)*** **[Note: is article 8 addressed adequately here?]**
Adequate provision must be made for the establishment of emergency response resources and procedures and provision, where necessary, of mines rescue facilities and personnel.

Legislation should provide for the interaction of emergency authorities, the conduct of emergency operations and the regular testing and review of emergency response capabilities

Reporting ***(Article 5.2(d))***
The legislation should provide for the collection of accident and incident statistics and the analysis and publication of such statistics. As far as possible, statistics collected and published should be to a uniform national standard.

Mine plans ***(Article 5.5)***
The need for plans of required accuracy and scale, prepared by qualified surveying personnel, must be included in the legislation. Such plans should

include working plans of the mine, surface plans showing all relevant features and mine rescue plans.

Where more than one seam or deposit is worked, plans should be of consistent scale and type to allow the overlaying of such plans.

Offences *(Article 16(a))*
The enforcement provisions of the legislation should include penalties in the event of non-compliance with the intent of the legislation.

Such penalties should be framed to provide the greatest penalty for the greatest risk arising from non-compliance and, as such, impose a greater burden on those persons having the greater prescribed accountability and responsibility. Alternatives to financial penalties or imprisonment should be provided for.

Any provisions for penalties should include provisions for defences and an appeal process to adequately safeguard the rights of individuals and corporations.

Regulatory framework and content *(Article 5.3 and 5.4; Article 7 (c) to (i); Article 9; Article 10 (a), (c) and (e))*
The nature and scope of the subordinate mining safety and health regulations need to be specified and to be capable of covering the risks perceived to be present or likely to be present. In particular, principal hazards and safety and health practices of a more basic nature need to be addressed in the regulation.

Areas of concern that need to be addressed in regulations may comprise, but are not limited to:

- Contraband
- Dust
- Emergency requirements
- Explosives
- Fire fighting
- Ground or strata control
- Health assessment of workers
- Inspections of workplaces
- Investigation of accidents and incidents
- Irrespirable atmospheres
- Isolation and tagging procedures
- Management of hazardous substances
- Means of egress from mines
- Mine plans
- Mine ventilation
- Physical and psychological impairment
- Use of illicit substances and alcohol
- Provision of first aid and medical facilities
- Personal protective equipment
- Training
- Transportation and traffic
- Acquisition of capital plant
- Use of electrical equipment
- Use of equipment and plant

STRUCTURE AND RELATIONSHIPS *(Article 4)*

Safety and health legislation covering mining operations would, as a minimum, contain a principal mining safety and health act containing the major provisions and principles, and subordinate regulations covering the more day-to-day operations of mines.

Regulations would consist of a set of basic provisions that apply to all mines within a jurisdiction. Where it is deemed appropriate or necessary, they would be supplemented by regulated provisions that apply to specific mine types or locations.

Dependent on the size, complexity and scope of mining operations in the relevant jurisdiction, the Act and Regulation may be supplemented by Standards or Codes of a subordinate legislative nature, and guidelines or codes of practice.

The Standards of a subordinate legislative nature may embrace the principle of allowing specific provisions embodied in the standard to be applied, or allowing enterprises to take actions deemed to comply with the objectives of the legislation and provide an equivalent or better outcome.

Any guidelines or codes of practice developed and implemented by the relevant mining inspectorate or legislative authority can provide procedures and practices to enhance safety and health practices at mines and may or may not encompass legislative connections. Any legislative implications of such guidelines or codes of practice should be specifically identified.

Consideration should also be given to the introduction of two-tier legislation, each requiring the same standard of performance and safety and health outcomes but providing different level of detail on how the outcomes are reached.

IMPLEMENTATION

At their meeting in Hobart in August 2000, Ministers confirmed their commitment to compliance with ILO C176 in each jurisdiction. They also supported national ratification of ILO C176 subject to formal agreement by individual States as required by Australian treaty policy provisions.

The suggested implementation program is:

(i) Each jurisdiction to identify the areas of non-compliance with ILO C176 and where non-compliance exists, bring its legislation into compliance by April 2005

(ii) Each jurisdiction to submit a request to the Federal Government by June 2005 for ratification of the *International Labour Organisation Convention 176 Safety and Health in Mines* by Australia.

(iii) Conference of Chief Inspectors of Mines to obtain Ministerial Council agreement on key principles of the legislative framework and on a timeframe (within 5 years) to make substantial progress on reducing areas of difference across jurisdictions.

(iv) Conference of Chief Inspectors of Mines to identify specific areas of differences in the approaches in each jurisdiction and to establish working parties to address these in accordance with the approach and within the time agreed by the Ministerial Council.

STRATEGY 2

COMPETENCY SUPPORT

INTRODUCTION

The safety, efficiency and effectiveness of mining operations are dependent on having effective systems and procedures, equipment that is fit for the purpose, and competent people — that is, people who are competent in establishing, implementing and applying systems, and people who are competent in carrying out tasks necessary for the operation of the mine in accordance with the procedures.

Governments require that people working on mine sites are competent to perform their tasks. They also have a role in auditing the mine management systems used to ensure the competence of all workers, including contractors. In some jurisdictions, specific positions have been defined as statutory, requiring regulation or administration of the evaluation of competence.

The need for those who are operating mines to be competent has been further emphasised by the introduction of Safety and Health legislation. This legislation places greater focus on acceptance and application of duty of care by people in the industry in planning, managing and carrying out their duties and responsibilities.

Safety is not the only consideration; the competence of those operating the mine will also impact on the mine's productivity, quality, environmental and statutory compliance performance — in short, its complete business profile.

The development and implementation of national mining training packages, with their application of competency-based assessment and training, has introduced industry benchmarks for determining the competence of those operating mines. These training packages, developed in consultation with the registered training organisations and advisory bodies, are likely to eventually replace current statutory certification systems. Any such transition would take place over a period of time, as each jurisdiction assesses and accepts the integrity and reliability of the trainers and assessors to deliver courses for the relevant statutory positions. In this context, close consultation with the proposed Resource Industries and Infrastructure Skills Council (successor of the National Mining Industry Training Advisory Body but with a somewhat more strategic focus) will be particularly important.

The action plan for competency support by the CCIM envisages maintenance of current statutory certification processes pending a transition over time to an efficient, competency-based national training and assessment regime. Such a regime must support innovation and meet both the needs of the jurisdictions and the Australian Quality Training Framework.

There may also be a role for jurisdictions to audit training providers/competency assessors.

NATIONAL STRATEGY

An appropriately documented strategy should be developed to provide the context for the range of actions needed to ensure smooth and efficient transition to a new regime. It should encourage the commitment of the mining industry, demonstrated by mining enterprises and sites dedicating resources to this purpose and having systems in place and operating that ensure their people are competent.

The elements of this strategy might include:

- an agreed plan;
- greater reliance on industry based competency assessment in determining the competency of those in key positions in the industry;
- universal application of risk management by all industry participants;
- skills and behaviour for the implementation of safety management systems;
- enhancement of communications competence;
- agreed measurable outcomes, including a mechanism for the collection and comparison of data on progress; and
- an on-going mechanism for future improvement.

Agreed plan

An agreed plan is vital to achieving the goal of ensuring that we have competent people operating mines. It should include:

- State-wide actions;
- recognition that resources need to be allocated to achieve the plan;
- the allocation of key accountabilities (e.g. regulators/industry/training bodies);
- the key features of the training systems to be applied;
- an agreed timetable; and
- milestones against which progress can be tracked.

Such a plan might be developed, in consultation with all stakeholders, by a working party of:

- industry associations or enterprises;
- regulators;
- unions;
- professional bodies; and
- training organisations and advisory bodies.

Industry-based competency assessment of those in key positions

A comprehensive suite of national competency standards has been developed by and for the mining industry. These units cover all aspects of the safe, efficient and effective management and operation of mines. There is a need to determine the competencies that are relevant for those in key positions in the industry. There may be units, for example, that are mandatory for certain key positions in all circumstances and others that are required only in specific circumstances.

The mining industry training packages also include assessment guidelines that may be applicable. A key question for regulators, as well as industry, is whether current

assessment guidelines and their application are adequate to ensure the competencies, and the currency of competencies, of those in key positions in the industry.

An agreed program and procedures for the transition from the present system to the new one will be needed.

The key positions requiring specific competencies, the relevant competencies, appropriate assessment procedures and the program and procedures for transition to the new requirements should be identified, in consultation with all stakeholders, by a working party which might include representatives of:

- present examination boards;
- regulators;
- those familiar with the industry based competency assessment system;
- those in key positions (incl. mine managers, operations managers and shot firers); and
- trainees undergoing development.

Universal application of risk management

Risk management is fundamental to the safe operation of mines, demonstrated by the incorporation of a number of new competency standards introduced into training packages. It should be applied by everybody involved in mining operations and underpin the planning and execution of all activities. Risk assessment is also an essential part of developing the competency of those operating mines, and has ongoing application in the assessment and review of individuals and the sites' training systems.

The outcome of this strategic objective, therefore, is to achieve acceptance and application of risk management as a fundamental process by all industry participants. A plan for achieving this strategic objective might be developed, in consultation with all stakeholders, by a working party which could include:

- Individuals experienced in establishing, implementing and applying operational risk management, and
- Individuals experienced in applying risk assessment in determining training needs.

Skills & behaviour for implementation of safety management plans

Risk management for key risk areas must be confirmed in documented on-site implementation plans. Safety management plans provide systems and procedures for the safe operating of the mine, but it is essential that those operating the mine understand them, are committed to them and are able to implement them fully.

An outcome of this strategic objective, therefore, might be for those managing and operating mines to have the necessary skills and behaviours in implementing safety management plans. A plan for achieving this strategic objective should be developed, in consultation with all stakeholders, by a working party including persons experienced in:

- establishing, implementing and applying safety management systems; and
- reviewing safety management systems.

Enhancement of communications competence

Effective communication skills are an essential element of the competencies needed to develop and implement mine safety systems and ensure the safe overall operation of the mine.

An outcome of this strategic objective, therefore, might be achievement of enhanced communications competence across the industry.

A plan for achieving this objective should be developed, in consultation with all stakeholders, by a working party which might include people experienced in developing and implementing effective communications systems and practices.

Agreed Measurable Outcomes

Agreed, measurable outcomes for all of these strategic objectives are essential in assessing progress towards achieving them, and in identifying the need for adjustments to existing measures or introduction of additional measures. Mechanisms for the collection and comparison of data and information to enable this measurement will also need to be established.

A plan for achieving this objective should be developed, in consultation with all stakeholders, by a working party that includes individuals experienced in developing and applying evaluation systems.

On-going mechanisms for future improvement

Mechanisms will need to be developed to ensure the ongoing improvement in the strategic objectives and their implementation plans and processes, and the site-level improvements in the competence of those operating the mines.

These mechanisms should be developed, in consultation with all stakeholders, by a working party that will include individuals with experience in establishing and implementing training system improvement mechanisms.

IMPLEMENTATION

The transition from current practice to an industry-delivered, competency-based system will be a complex process. It will require close consultation with industry, registered training organisations and training advisory bodies, within individual jurisdictions and nationally.

Particular attention will need to be given to ongoing quality control of qualifications issued and the assessments conducted by registered training organisations, to ensure that they are consistent with agreed industry standards for all levels of competency. Current Examination/Qualifications Boards for statutory functions in each jurisdiction would have a particularly important monitoring role in this regard before final changes are made to certification processes.

A significant practical step in the transition might be the introduction of a Work Record Book for each employee (and maintained by the employee) that would allow the recording and certifying in some way of knowledge and skills learnt. This would help in competency auditing and as a training system improvement guide, as well as assisting and encouraging employees in their own career path development and their mobility.

Each of the strategic objectives discussed above requires development by a team dedicated to the task. The approach suggested here is that, for each of the objectives, a working party comprising representatives of interested parties with the required skills and disciplines be formed to undertake that work.

Some of them will have particular relevance to, and will need to be developed by, individual jurisdictions. Others will have a more national orientation from the outset. However, given the need for nationwide consistency which underpins the National Mine Safety Framework, it is important that plans — even those designed to meet the specific needs of individual jurisdictions — are developed in a way that contributes to and enhances that nationwide consistency.

To that end, it is proposed that a sub-group of the CCIM provide an overview and co-ordination support to help ensure that the working parties are established, undertake their tasks in an effective and timely way, and that the results of their work are appropriately disseminated.

It may be appropriate, also, for this sub-group to develop a guide for jurisdictions to review competency standards and assessment guidelines covering all employees, as a means of further enhancing nationwide consistency of approach in the transition from statutory to competency-based assessment regimes.

A sub-group comprising representatives from Queensland and New South Wales has already been established. It may be appropriate that this subgroup, augmented as necessary by other jurisdictions, undertake the broader overview and co-ordination role on behalf of the CCIM.

In the first instance, three significant actions might be taken:

1. In addressing OSH competency from a regulatory viewpoint, develop a structured national approach (audit/verification tool) for regulators to use when evaluating mine systems for having competent people. This might be developed and trialled before 30 June 2004.
2. Support the joint Queensland/NSW working party addressing issues arising from the move to industry-based assessments of competency for statutory position-holders. This working party needs to satisfy the requirement for portability of qualifications.
3. Consult in each jurisdiction on the wider strategic directions outlined above, with the Queensland/NSW working party taking an overview and co-ordination role on behalf of CCIM in the strategic directions development. This consultation might lead to specific goals to be reached within realistic timeframes.

STRATEGY 3
COMPLIANCE SUPPORT

INTRODUCTION

Purpose[1]

Mining is a dynamic and increasingly complex industry. The principle of duty of care underpins the industry's operation and the legislation which deals with it. Better and more information are needed to support the industry in ensuring compliance with legislative requirements, particularly in times of changing expectations of performance.

The provision of national guidance material will be more effective and efficient than if each jurisdiction produces its own. A documented, standardised approach will enable all parties in the industry to participate to the optimum level, and reach higher levels of performance effectiveness and efficiency.

Scope

For the present, the emphasis in this strategy is on 'guidance material'. Guidance material covers a range of information types, each supporting the general duty of care. They encompass codes of practice, guidelines, guidance notes, inquiry/investigation findings, and accident alerts. Nationally, a range of styles, formats and priorities for future direction exist, and need to be rationalised.

At a later stage, the concept of compliance support may evolve to include other products of value in achieving, measuring and improving or going beyond compliance.

Definitions

First two tiers of legislation – Acts of Parliament are generally referred to as the first tier, while regulations are generally referred to as the second tier.

Guidance material – the generic term to cover such things as codes of practice, guidelines, guidance notes, investigation/inquiry findings, alerts.

(Approved) Codes of Practice – generally regarded as the third tier. Codes should be developed by industry, by people with the requisite knowledge and experience. When called up at law, they are commonly approved by the Minister. They contain mandatory and recommended approaches. When called up at law they are admitted as evidence in Court proceedings. In essence, Codes are to be observed unless it is clearly better to go beyond their provisions/recommendations.

Guidelines - may be referred to as the fourth tier, but are not generally regarded as part of the legislative arrangements. They should only contain information on good practice

[1] This Strategy deliberately adopts a format which reflects the format of guidance material.

and have no mandatory provisions. They may, subject to debate especially on relevance, be admitted in Court proceedings.

Guidance notes – these provide technical information about individual ways of tackling a hazard or risk. They usually assist in finding a practical solution to a problem.

Recognised standards – the term used in Queensland mining legislation for the third tier of legislation (ie Codes)

Applied guidelines – the term used in New South Wales' coal safety legislation to refer to the third tier of legislation

Accountabilities

Ideally, industry parties develop guidance information to address risks associated with mining activities. At present, no industry organisation coordinates the development of 'the industry standard', so Governments currently accept this co-ordinating role.

INFORMATION RESOURCES

Guidance material

Range of material

Legislation cannot be so specific as to deal with all the technicalities of mine safety and health. It needs to be supported by other publications, which assist with risk management and reflect good practice.

Existing industry publications include, in descending order of obligation, the following:

- Codes of practice, Australian Standards
- Guidelines
- Guidance notes
- Findings
- Alerts
- Innovations
- Site-specific materials.

There will always be a need for each jurisdiction to develop or call up different guidance information in response to local needs. Indexing this information, or putting it into an overall context, will enhance its accessibility and use.

Process guidance

In addition to technical information, guidance information should be publicly available on processes of developing risk management plans. Developers of guidance material should consider the importance of providing practical steps throughout the life-cycle of risk management. Typical forms which may assist in the management of the risk and good case study material should also be included.

Guidance on evaluating the effectiveness of a risk management approach is desirable.

Technical references
A nationally uniform guideline suggests inclusion of:

- purpose, Scope, Definitions and References;
- risk control hierarchy: hazard identification, risk assessment, risk controls using the hierarchy of elimination, substitution, engineering, barriers, etc; and
- what to do and how to measure the impact of the risk management actions.

with supporting technical material as appropriate.

Processes for development, distribution and review

Steps to be addressed in developing a guidance document include the following:

- Determination of need; existing consultation mechanisms should be functioning in a way which identifies areas of need. Statistics, experience or credible anecdotal evidence may provide the basis for developing guidance material.
- Consultation; the development of guidance should be supported by consultation with interested or affected parties at all stages, including draft reviews.
- Involvement of experts; a team of interested and expert participants is beneficial in drafting a document.
- Structure of document; to include risk factors, risk controls, monitoring.
- Document identifier and date; an identification number and date needs to be added so users know that they are referring to the current document.
- Document control at source; a controlled document must be established and the person responsible for its maintenance identified.
- Determination of format; for the present, at least, guidance documents should be made available in hard copy as well as electronically.
- Promotion of availability and source.
- Pricing; some jurisdictions may choose to charge for guideline documents made available in hard copy form.
- Schedule for review by a specific date; this review should be no more than five years after publication, unless triggered earlier by an incident.
- Provision for feedback; a feedback sheet should be included in every publication. Feedback should be a feature of regular consultation processes.
- Mines register guidance material and control documents; guidance material which has been referred to in a site's safety management plan should be registered at mines and be available for ready examination by anyone on site.
- Enhancement of accessibility; an electronic search capacity, involving a metadata system, needs to be developed so that a site can easily search for and acquire relevant current documents.

"Learning" from incidents

Events which might suggest the need for a guidance document include the following:

- Incidents; especially those with medium to high risks, in any sector, any jurisdiction or overseas, particularly those with risk management systems implications. For these, it is important that hazards are identified, risk factors considered, and risk controls determined.
- Alerts (with recommendations); safety alerts are widely used in the mining industry and have a standard structure. Some alerts may not warrant the development of further guidance immediately, but may suggest guidance information is necessary if they are repeated. An alert identification number system needs to be developed
- Inquiries/investigations recommendations; outcomes of a formal investigation should be considered in the same light as incidents themselves.
- Statistical analyses which determine areas of concern; through a process of regular review, trends and areas of need should be identified. Those with highest priority might suggest the development of guidance material.
- 'Audit' results; improvements are often suggested by audits, conducted either by governments or by the site itself. These results should be shared.
- Trends which suggest further guidance; trends, beyond those identified by statistical analyses, identified either informally or by credible anecdotal advice, might suggest the development of guidance material.
- Successful solutions shared, especially 'innovations'; a means of sharing innovations should be integrated into the provision of guidance information.

In all cases, the use of boxed case studies or incident reports should be encouraged.

Research may be warranted where current risk control/remedial action is too low in the hierarchy of risk controls.

A regulatory review may be needed, and this should be addressed when a guideline document is developed. Guidelines should have a legislative reference, briefly at the beginning of the document and in greater detail as an appendix.

NATIONAL APPROACH

There are four areas of immediate action that suggest themselves:

Rationalising Existing Material

- Adopt a national handbook, to be updated and improved over time
  - this document may also provide the base for a metadata search system;
- List existing guidelines;
- Describe types of guidance material;
- Describe the overall context, including the legislative context and the spectrum of guidance material; and
- Detail differences in jurisdictional legislative frameworks for all guidance material, in a format which allows adjustment to account for the progressive reduction in legislative differences over time.

Consistency of Format

- Develop a national template for style, content and approach; and
- Reinforce hazard identification, risk assessment and controls, monitoring and review.

Access to Material

Issues for resolution across jurisdictions:

- indexing the existing spectrum of guidance material;
- provision of a list of existing guidance material;
- availability of guidance material on websites;
- agreement on publication policies and pricing issues;;
- promotion methods for new information;
- electronic service delivery;
- hotlinks to other sites; and
- a central 'work-in-progress' tracking document; including accountability for maintenance.

National Reviews and Improvements

Agreements on

- cross-jurisdictional development; and
- Circulation of drafts which emanate from one jurisdiction to other jurisdictions for comment.

It is proposed that a working party, convened by New South Wales and supported by other jurisdictions and invited experts, be commissioned to undertake this work.

FUTURE DIRECTION

Once immediate priorities have been addressed, there are four areas of activity to enhance the level of compliance support that warrant attention:

MISHC National Meta-database

The CCIM is supporting the Gateway project led by Prof Jim Joy, Minerals Industry Safety and Health Centre, University of Queensland. An important first step by MISHC is a process of searching for and validating relevant information to be included in the meta-database. The CCIM would be an appropriate (but not the only) body for assisting in this process.

The logical extension of the Gateway project is for the industry, with the support of all parties, to take a more active role in the development of industry standards; at some stage it could take over this role entirely from Governments.

Assessment tools

Compliance support should also, in time and with consultation, cover issues such as site self-assessment, which is a necessary complement to the Government's role of planned assessments of safety performance against 'the industry standard'.

Many sites already conduct their own audits, adopting in many cases 'off-the-shelf' audit products or adopting the Australian Standard for auditing safety systems. Inspectorate reviews continue, and in many cases are becoming more structured and formalised, often along the lines of the Australian Standard.

Measurement of compliance

A measure of site-wide (as opposed to single issue risk) compliance should also be developed. One approach to this has been developed recently in Queensland, and another developed earlier in New Zealand. Issues involved include:

- risk ranking for all (or at least the major) mines;
- performance evaluation against that risk ranking, potentially both by desk-top audit and on-site verification;
- overall performance rank;
- performance improvement trends; and
- performance reports.

Beyond compliance

Over recent years, compliance progressed from compliance with prescriptive risk controls to requiring risk assessments for gaining statutory approvals. Compliance then moved to requiring risk management, progressing to the development of systems to address a number of risks across the mine. Most recently, compliance requires safety management plans as evidence of the implementation of systems. Communication is at the heart of implementing safety management plans and new skills are required to make communication effective; these new skills may take some time to acquire. Plans that address a range of 'what if' scenarios should then emerge.

Expert systems

Computerisation allows information from various sources to be compiled, hypotheses to be put, evidence checked, results proposed, with a range of reports. A system capable of performing these tasks is commonly called an 'expert system'.

New South Wales has an approach, called *Risk Identification Management Systems,* for conducting a desk-top broad-brush risk assessment of a mine's risks and determining a relevant management system. Queensland has a mines risk ranking which suggests priorities. A range of information is available manually to support decisions about priorities and site checks. Some jurisdictions have formalised site-checking approaches. The results of these checks could be recorded in standard language and entered into a database. Experience suggests that manual approaches rely heavily on corporate memory and are therefore vulnerable. An incident or a trigger should reasonably

automatically suggest a change in priorities. In fact, a range of reports is needed from the expert system used.

Queensland has developed a major hazards database, identifying hazards, risk factors and controls. This database is quite different in nature to common guidance material. Extending the database is relatively easy and is part of developing an 'expert system'. A project to explore the construction of a program to interrogate the database in a number of ways has been started by New South Wales; an 'expert system shell' has been purchased from UK.

A national project to develop an 'expert system' appears to be sensible, and needs further examination.

STRATEGY 4

NATIONALLY CO-ORDINATED PROTOCOL ON ENFORCEMENT

INTRODUCTION

The Underlying Principles

In line with the National OHS Strategy 2002-2012, one of the goals for governments in mining is to update and publicise enforcement strategies so that they are consistent across jurisdictions. Development of a consistent approach to enforcement will provide clear and consistent standards for duty holders and support equitable outcomes from governments' contribution to safety and health in the mining industry.

This does not necessarily mean that a single enforcement policy is required; rather, jurisdictions' strategies for enforcement should be aligned and consistent. A common aim is the swift application of relevant enforcement options.

Jurisdictions currently take an approach that consists of a graduated series of options, with persuasion and verbal directions as the starting point, progressing through written instructions, improvement notices, prohibition notices and, as a last resort, prosecution. This is generally referred to as the *Enforcement Pyramid*.

NATIONAL ENFORCEMENT PROTOCOL

To provide for consistent and aligned strategies for enforcement across jurisdictions, a protocol has been proposed which incorporates and aligns the fundamental elements of the policies and procedures of individual jurisdictions.

The intent of this approach is to establish a consistent, graded approach to assuring compliance across jurisdictions.

This Enforcement Protocol applies to the enforcement of specific mining safety and associated legislation by the responsible government agencies in each of the jurisdictions. It includes the enforcement of subsidiary legislation (regulations) and the administration of standards expressed or implied in non-legislative provisions such as codes of practice, licences, approvals, certificates and guidance material which may be invoked or applied under legislation.

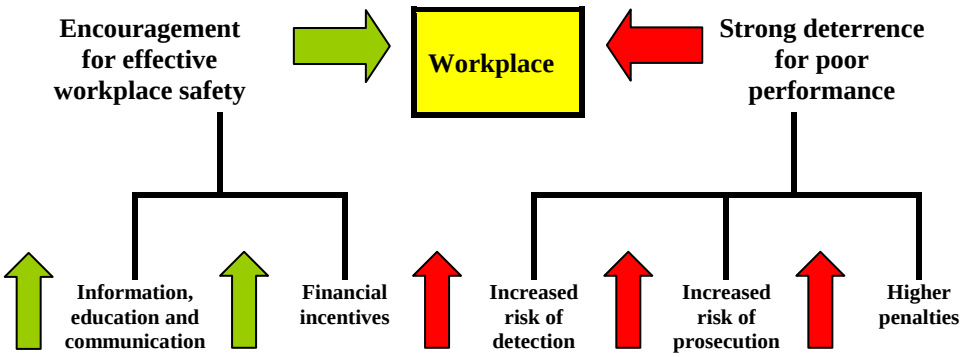
ENFORCEMENT ACTION ALTERNATIVES

Enforcement Pyramid

Enforcement of the provisions of mining safety legislative and non-legislative measures should be undertaken by jurisdictions within the context of a series of escalating alternatives, selected on a considered and rational basis to deal with successively more

serious circumstances. For example (this model could be modified to include other steps if required):

The foundation for enforcement policies across jurisdictions should be the encouragement of compliance with a view to the prevention of work-related death, injury and illness. Policies should recognise that real and sustainable improvement in health and safety is achieved primarily by the active involvement of employers and employees (as well as manufacturers and suppliers) in workplace hazard management and the elimination of hazards. Policies may mandate both encouragement and deterrent measures to achieve this end. For example



HIERARCHY OF ENFORCEMENT ACTION

Information and Education

The scope of information and education initiatives open to jurisdictions and the provision of guidance on compliance issues is addressed in the previous section.

Verbal Directives

Where an identified risk or breach can be immediately corrected, or, in the opinion of the responsible officer of the agency, it is considered to be the most practicable method

of achieving a satisfactory level of compliance, a verbal directive to correct the situation giving rise to concern may be issued.

This action should be considered for issues of a less serious nature that are unlikely to lead to further action. However, a written record of the direction(s) issued should be made for future reference, should escalated action subsequently be required.

Improvement Notices (or their equivalent)

An Improvement Notice (or its equivalent under prevailing legislation within a particular jurisdiction) may be issued to address an identified breach of legislation which does not constitute an immediate risk to safety and health, but which may develop into a serious situation if the hazard is not promptly rectified.

Prohibition Notices (or their equivalent)

A Prohibition Notice (or its equivalent under prevailing legislation within a particular jurisdiction) may be issued to address a serious identified breach of legislation where there is an immediate risk of harm to the safety or health of a person at work. An authorised officer may issue the Notice, prohibiting the carrying on of the activity causing the apprehension of harm until the authority is satisfied that adequate measures have been taken to avert, eliminate or minimise the risk of significant harm.

Provision may be made for a process of review of Improvement and Prohibition Notices (or their equivalents).

Other Enforcement Action

To facilitate the prevention of work-related death, injury and illness, jurisdictions may make provision for other formal or informal means of enforcement.

While enforceable actions/undertakings are not separately identified in the pyramid at present (and there may be value in doing so) these actions may include the following:

- written complaints or letters of concern to corporations or duty holders specifying particular workplace hazards and requiring their removal or management to reduce the level of risk arising;
- letters to corporations, duty holders or individuals advising of statutory obligations and penalties and/or of concerns held by the authority;
- compulsory education programs;
- attendance by duty holders or corporate executives at meetings or counselling sessions conducted by the authority;
- revoking a licence or a certificate or modifying its terms or conditions;
- reviewing, modifying or upholding a previous direction; and
- infringement notices and/or on-the-spot fines or other administrative penalties (where these are prescribed by legislation).

Prosecution

Where the authority obtains sufficient evidence to establish a *prima facie* case, and there is a reasonable prospect of a conviction, consideration may be given to taking prosecution action, instead of or in addition to applying alternative enforcement actions, in circumstances including:

- where other available actions are not considered sufficient for ensuring compliance with legislation;
- where an alleged breach of the legislation either has resulted, or could have resulted, in a fatality or serious injury;
- alleged failure to comply with previous, lower-level enforcement actions;
- where the authority alleges a person has repeated the same offence or breach;
- in cases of discrimination against an employee for any action in relation to occupational safety and health;
- serious breaches of the consultative provisions of the legislation;
- obstruction of an authorised officer; and
- where an employee has been exposed to a hazard resulting from negligent action by an individual or duty holder or a corporation.

In cases falling under one or more of the above circumstances, a prosecution would normally only be initiated where:

- there is sufficient evidence to establish a *prima facie* case;
- there is a reasonable prospect of success; and
- pursuing prosecution action is judged to be in the public interest.

The question whether there is a *prima facie* case is one of law. This involves consideration of whether the evidence could lead to the conclusion, **beyond reasonable doubt** (note: this does not mean beyond **all** doubt), that all the elements of the offence have been proved.

It is not in the public interest to proceed with a prosecution which has no reasonable prospect of resulting in a conviction.

A prosecution should be discontinued if, based on the available material and upon appropriate advice, the authority considers that there is no reasonable prospect of conviction, unless further prompt investigation will remedy any deficiency in the prosecution case. The evaluation of prospects of conviction requires dispassionate judgment, based on the advice and experience of legal counsel and the prosecutor.

If a *prima facie* case exists and there is judged to be a reasonable prospect of conviction, the prosecution of an offence (and, the continuation of such a prosecution) must also be in the public interest.

This requires the balancing of a broad range of factors, as they relate to the particular case. Ultimately it is all the relevant factors **taken together** which will determine, on

balance, whether it is in the public interest to proceed. In applying the law impartially, in a fair and consistent manner, it is necessary to consider the:

- Rights of the alleged offender;
- Interests and rights of victims; and
- Interests of the community.

The decision to continue a prosecution (which should be held under continuous review) is at least as important as the decision to initiate it.

GUIDELINES FOR THE APPLICATION OF ENFORCEMENT ACTION

Nothing in this protocol prevents the use of any of these means of enforcement in concert with any or all of the others.

A regulatory response or action should be considered in every instance where non-compliance with the relevant standards becomes known.

Enforcement action should be applied in a fair and consistent manner, taking into account the seriousness of the non-compliance or the imminence of danger or scale of risk. Action should be taken in a cooperative manner with industry as a whole and with individual corporations, duty holders or persons where appropriate.

Enforcement action should be applied in an escalating fashion where previous actions have not met with satisfactory responses.

A more immediate high level response may be considered where the severity of risk or imminence of danger warrants such action.

Prosecution may be an appropriate enforcement option, and may be considered based on the appropriate consultation mechanism determined by the jurisdiction.

Circumstances may arise in the process of investigating a serious injury or fatality where the authority forms the view (after appropriate legal advice) that the evidence is appropriate to action under the common law or the statutory criminal code (in jurisdictions where such statutes apply). The Director of Public Prosecutions or equivalent officer within the jurisdiction may be briefed accordingly and the Police Service and/or Coroner advised as necessary.

CONGRUENCE ASSURANCE

To provide continuing assurance of consistency across jurisdictions and foster a best-practice and continuous improvement focus, it may be prudent to give consideration to the collection, collation and comparison of data relating to enforcement activity by jurisdictions on a periodic basis. Such a data set could be appropriately considered as part of an overall national data collection strategy.

GLOSSARY OF TERMS

Authority	means the authority established under statute to administer mining safety legislation within a particular jurisdiction.
Authorised officer	means a person appointed under statute or otherwise authorised to act on behalf of the authority in the administration and/or enforcement of mining safety legislation.
Duty holder	means a person in control of a workplace and includes a person who is appointed or otherwise bound, under the applicable mining (or other) safety legislation of the jurisdiction, to undertake, specific duties or functions in relation to safety or health on behalf of the person in control of a workplace.
Improvement Notice	means a written notice issued by an authorised officer requiring that a particular activity or state of affairs, which contravenes applicable legislation, be remedied.
Person	includes both natural persons and corporate entities.
Prohibition Notice	means a written notice issued by an authorised officer requiring that a particular activity, which is giving or may give rise to a risk of imminent and serious injury or harm to health, cease until the matters giving rise to concern are remedied.
Prosecution	means the process of laying all of the relevant evidence before a court of criminal jurisdiction to enable it to make a determination of guilt and impose appropriate sanctions or penalties for criminal conduct.
Verbal Directive	means a verbal instruction issued by an authorised officer for the purpose of securing the safety or health of persons in and around a workplace or the safety or health of the public.

STRATEGY 5
DATA COLLECTION

INTRODUCTION

Companies, industry associations and regulatory authorities spend a great deal of time and effort collecting and analysing data on health and safety performance. The reasons for doing so are well documented. They encompass the following:

- Performance measurement. Good data provide a basis for benchmarking and measuring improvements, as well as enhancing accountability;
- Indication of the incidence or prevalence of injury and disease;
- Prioritisation of activity. Good data help in determining priorities and the types of measures needed to improve safety and health;
- Feedback on performance, and on the impact of measures undertaken;
- Indicator of need and priorities for OSH research;
- Identification of emerging workplace hazards; and
- Communication. Good data and analysis enhance communication and help encourage commitment to improved OSH performance.

While there currently exist OSH data from a range of sources, there is not one single source of data, or even group of data collections, which effectively capture all the influences and outcomes that characterise the occupational safety and health environment in the mining industry. The need for improved OSH data collections is an acknowledged priority within the Australian mining community and is reflected in the National Mine Safety Framework. An effective data set will help underpin and support other goals of the Framework.

OVERVIEW OF EXISTING DATA SETS

The NOHSC National Data Set

The National Data Set consists of the compensation-related data from each of the States and Territories and some national agencies such as Telstra and Comcare. The primary purpose of the National Data Set (NDS) is to enable the production of national and nationally comparable worker's compensation-based data.

These data provide an important indicator of the nature and extent of the occupational safety and health problem in Australia and help identify current and emerging OSH issues.

The strength of the NDS is that it covers the majority of Australian workers with a reasonably standardised data collection and coding system, allows for the calculation of

incidence and frequency rates, and provides reliable information on injuries and the circumstances surrounding them via analysis published regularly.

However, because the NDS is based on statistics collected primarily for compensation purposes rather than OSH, its coverage of areas of interest in OSH prevention is not uniform:

- only employees are covered;
- disorders that result in less than five days off work are excluded;
- disorders where it is difficult to establish work-related causation, such as with many malignancies and diseases of long latency, are excluded in practice; and
- there is an uncertain degree of under-claiming of compensatable conditions.

Australian based mining data sets

Mining related OSH data sets are collected and managed by various regulatory agencies, government departments, industry associations, universities and private organisations in all States. Overall, the states provide information regarding:

- fatalities;
- injury and incident notifications;
- work-related illness and disease;
- compliance with regulations;
- hazards;
- exposures;
- ad hoc surveys;
- other routine data collections; and
- research projects.

Whilst all the State-based regulatory authorities collect and provide the same basic OSH information there is a lack of consistency across jurisdictions in the coding and reporting of OSH incidents — an issue that has been noted by a number of industry associations. The major limitations of the data collections include issues such as:

- basic definitional issues relating to what constitutes the mining industry (eg, the extent to which downstream activities form part of mining);
- variations in coverage by inspectorates of mineral sectors in each state (some have responsibility for smelting and even refining, if carried out on-site; others exclude some or all of these activities) ;
- differences in treatment of disease cases;
- the absence of a national guideline or reporting standard; and
- the reliance on mines submitting data.

These limitations can be seen in the variance of information provided by the various State regulatory authorities in their annual reports. It is difficult to extract information that allows for easy comparisons across jurisdictions.

The purpose and function of these state based mining safety and health data sets is similar to that of the NOHSC NDS in that they are used for comparative performance monitoring purposes as well as to identify current and emerging issues and trends. The major point of difference between the two is the compensation claim basis of the NDS collection which, if adopted for the mining industry, would lead to under-reporting of total lost time injuries in the industry.

There are issues relating to classification also. NOHSC has a well-defined "Type of Occurrence Classification System" (TOOCS), building on standard industrial and occupational classifications. Mining based data sets commonly suggest the need for somewhat more diverse points of measure, such as:

- electrical safety;
- strata/ground/slope control;
- ventilation;
- surface transport, especially the interaction between light and heavy vehicles;
- maintenance of underground mobile plant, especially with respect to outbreak of fire;
- compliance with legislation generally;
- competency of people in the industry;
- fitness, including especially fatigue and drugs and alcohol;
- manual handling; and
- slips, trips and falls.

KEY ISSUES FOR THE NATIONAL MINING DATA COLLECTION STRATEGY

There are two key issues in the development of a national data collection strategy for the mining industry:

1. what type of OSH data should be collected by the mining industry; and
2. can the NOHSC collect and manage the collected data in a format appropriate to the mining industry.

These key issues raise a number of subsidiary questions:

- what is the purpose of the data currently being collected? How are they being used? Could they be used more effectively?
- are the data currently being collected delivering the expected outcomes?
- what type of data should be collected that we are currently not collecting?
- what type of reports should be developed and by whom?
- is there a strategy to use the data at a national level for the development of OSH priorities in the mining industry?
- does NOHSC have the capacity to code, store, maintain and retrieve the type of data the industry needs?
- what are the costs (if any) for the administration of the mining industry data set and who will bear the cost?

- should the mining industry adopt the coding principles of the NDS?
- how are the data to be transferred to a central agency? What format (electronic) should the data be stored and transferred in?
- who should have access to the data?
- is the purpose of the mining industry data set different to that of the NDS?
- given that much of the compensation data from mining jurisdictions is already in the NDS, should a new mining data set remain separate from the NDS?

DATA AND INDICATOR TYPES

Outcome Data

Outcome data are the most common type collected by the State regulatory authorities. Generally, they are easy to collect and verify and there is a fair degree of consistency across the States in their approach, although the lack of a nationally agreed data set and classification system hinder the direct comparison of performance across sectors and between States. Outcome data currently collected include such measures as:

- fatality rates;
- lost time injuries/rates;
- severity and duration rates; as well as
- enforcement actions by regulatory agencies including:
  - infringement notices/prosecutions; and
  - directions and notices.

To improve consistency and reporting accuracy, an agreed definition of what constitutes outcome data is required. Consideration should also be given to recording:

- permanent disability injuries and rates;
- medical treatment injuries/rates;
- total recordable injuries/rates; and
- high potential incidents.

Sufficient information should be obtained from the outcome data, preferably augmented by causality data, to identify trends and to assist in the development of OSH priorities for regulators and industry stakeholders. This may include formal identification of data collection priorities for each sector and, if required, hazard-specific data should also be agreed. The merits of tracking major risks and major hazard events, and patterns of reporting — ie, by industry/sector/individual mine — are also issues to be considered.

Lead Indicators

The development of performance-based legislation means that the use of traditional indicators such as Lost Time Injury Frequency Rate as the sole determinant of safety performance may no longer be adequate or appropriate. Because of the lag between reporting and publication of safety-related figures and trends, the information provided

by outcome-based measures does not help organisations respond quickly and effectively.

There has been much debate in recent years about the development of new or positive performance based measures, what purposes they should serve, what form they should take and which are the most appropriate. Developing such measures will not be an easy task : this form of measurement is one of the most difficult to undertake in terms of collecting and administering data. A number of key issues will need to be addressed if such indicators are to become a part of the mining data strategy:

- does the industry have a clear definition of what constitutes a lead indicator?
- is there a need to collect positive performance measures within the mining industry?
- is this an issue for the mining industry alone, or should there be a somewhat broader, all-industry strategy developed?
- what performance measures should be collected?
- given the costs of collecting positive performance measures how — and how often — should they be collected?

These are matters a multi-disciplinary project team will need to address.

Critical Incident Data

Currently there is no national co-ordinated approach to the collection and distribution of critical incident data within the National Data Set or elsewhere. This is a critical shortcoming that needs to be addressed by all jurisdictions.

In the first instance, agreement needs to be reached between stakeholders on definitional issues — what constitutes a critical incident and what classification system will be used — so that there is a clear documentation of reportable critical incidents to help stakeholders report in a consistent manner. A co-ordinated approach to collating and analysing data must also be developed so that trends can be identified and preventative strategies designed and implemented.

The issues of the collection, storage, maintenance and retrieval of critical incident data are similar to those of outcome data and as such should be addressed within the same framework. NOHSC should be approached to determine if it is viable for NOHSC to have stewardship of the critical incident data as part of a broader mining data suite.

Proactive and Responsive Government Activity Data

The issue of a proactive and responsive government activity data set to help target government activities at the areas within the mining industry that most need assistance also needs consideration. It would encompass national priorities and projects, State level projects and sector-specific projects and priorities.

It also necessitates resolution of a number of matters within the purview of the CCIM:

- coordinated approaches to issues and guidelines etc;

- consistent enforcement policies;
- consistent ranking of sites, along the lines of models developed by Queensland and Victoria;
- competencies for inspectors;
- joint training initiatives for inspectors;
- exchange of personnel to cross-fertilize learnings and enhance consistency of approaches;
- development of hazard registers and common audit protocols; and
- exchange of educational materials and procedures.

These matters — and how such activity data might best be linked into a national data set — are issues for the CCIM to investigate.

IMPLEMENTING A NATIONAL STRATEGY

Strategy development

A strategic approach is required to the development of consistent and reliable mining OSH performance data collection, analysis and distribution. This, in turn, requires agreement on a rigorously defined data set, a streamlined approach to collection, and a standardised – preferably electronic – format for reporting.

This will require input from stakeholders. It would be appropriate for CCIM to establish a working party of key stakeholders whose first task will be to determine:

- what overall indicators of OSH performance should be used;
- what actual data or measures should be collected;
- which standard classification systems for the recording and reporting of data should be adopted;
- who will collect the basic data Regulatory Authorities, mines, industry organisations etc);
- what sources will the data be collected from (mines, quarries, exploration etc) and in what format should the data be collected (electronic, paper based etc);
- what are the agreed reporting timelines and structures;
- who is the most appropriate body to manage the central data base; how might its establishment and maintenance be funded; and
- how will the data be made available (eg web based, annual report); who is responsible for reporting and how might it be funded.

Implementation

There are four basic steps in the implementation:

- Strategic development : in effect, the resolution of the issues outlined above by stakeholders. Matters to be addressed include legislative definitions, reporting arrangements, data sources and validation of data, formulae, analyses of data and publication of results.

- Management processes : encompassing ongoing administration, funding and reporting issues. Whether NOHSC is the appropriate management body — and, indeed, has the capacity to provide this service — is a matter for discussion with NOHSC. Irrespective of what organisation is ultimately determined as host, a formal, agreed implementation plan is needed.
- System design : covering all issues associated with data collection, storage, retrieval and analysis. It will also involve the development of standard forms, guidance materials and training for all participants to ensure consistency of approach.
- Linkages. Links with other parties, such as worker's compensation agencies, regulatory bodies, industry associations and statistical agencies such as the Australian Bureau of Statistics, need to be established to ensure completeness and consistency of approach across-the-board.

Implementation may be staged. A basic data set could be agreed as a starting point. Additional measures can be added in subsequent years. Extension into areas of recording not currently captured in the NOHSC National Data Set, such as the naming of good as well as poorly performing companies and the collection of prosecutions, infringements, directions and notices issued to mining companies, can also be determined in this process.

Monitoring

The overall monitoring and management of the project should be through the CCIM. This may require the development of a sub-group to oversee the detail of the project. Annual reporting of overall OSH performance in the mining industry should be to all stakeholders including, Regulatory Authorities, industry associations, unions, and other interested stakeholders. Regular analysis of the data should be undertaken by the Chief Inspectors Conference and the relevant regulatory authorities.

Priority actions

1. A national strategy for the collection and management of OSH data in the mining industry, including the types of data collected and indicators developed, should be established by CCIM through a working party of key stakeholders.
2. The focus of the data set and the collection, analysis and distribution of information should be on the continual improvement of safety and health outcomes for the mining industry's support of the Mine Safety Framework objectives
3. NOHSC, industry organisations and other bodies such as the MISHC should be approached by the CCIM on the management of an appropriate data set for the mining industry based on mining industry requirements.
4. The data collection implementation process should involve the development of standard forms, guidance materials and training for all stakeholders to ensure consistency of approach across each jurisdiction.

The implementation process should be the subject of review by the CCIM. Pro-active and responsive government activity data should be used to underpin all of the goals outlined in the National Mine Safety Framework.

STRATEGY 6
CONSULTATION

INTRODUCTION

Purpose

Consultation underpins other goals of the National Mine Safety Framework. Consequently, the Framework incorporates effective approaches to consultation with stakeholders and coordination between jurisdictions as one of its key strategies.

Individual State and Territory governments have provisions in place for consultation on safety and health issues within the mining industry at the workgroup/workplace level and at the state or territory industry level. Details of existing provisions are contained in the companion volume *Background and Explanatory Notes*. In the interests of ensuring consistent and effective standards for consultation nationwide, however, this document outlines a proposed set of standard guidelines for both of these levels.

The guidelines for workgroup/workplace level consultations are based on relevant sections of *ILO Convention 176: Safety and Health in Mines and on current principles and practices*. .Similarly, guidelines for State/industry level consultations reflect the best of existing mechanisms.

A model for consultation at the national level is also proposed, drawing on and extending principles that apply at the State level.

Accountabilities

Role of government

Employers and employees are responsible for consultation at the workplace/workgroup level. Governments' role is to set a policy framework for this consultation — ideally one which provides for consistency between jurisdictions, while being flexible enough to provide scope for variations to meet specific needs.

At a state and national level, governments have a more direct role to play in facilitating and contributing actively to tripartite safety and health consultative processes.

Role of employers, industry bodies, employees and employee representative groups

Industry and employees are responsible for carrying out consultative processes within workgroups/workplaces and their respective representative bodies are responsible for contributing to consultative processes at the state and national industry levels.

CONSULTATION AT THE WORKGROUP OR WORKPLACE LEVEL

Legislation in all States and Territories provides for the involvement of mining industry employers and employees in safety and health issues at the workgroup or workplace level. Generally these provisions include specific arrangements for consultation under either general occupational health and safety or mining industry-specific legislation.

Workgroup or workplace level consultation, involving management and staff employed at the minesite, takes place in a way that is appropriate for a particular workplace or in accordance with the preferences of the parties involved. Employees may be represented in a consultative process through elected safety and health representatives, who typically also have roles in compliance. Safety and health committees may also be part of the consultation process. Generally, consultative mechanisms exist only when sought by the employees at a mine and often there are minimum levels of staff required before these mechanisms can be activated. Usually, a Government official is responsible for resolving disputes concerning consultative processes.

It is proposed that a general set of principles and guidelines for consultation in workgroups and workplaces be adopted. They are sufficiently general to allow each jurisdiction to tailor processes to best meet local requirements. They are set out below.

Proposed guidelines for consultation at workgroup or workplace level

- Consultation between management and employees on safety and health issues at the workgroup or workplace level is an intrinsic feature of best practice in the mining industry. Accordingly, provision for consultation at this level should be an integral component of safety and health management on all minesites, irrespective of size.
- Appropriately conducted, consultation on safety and health matters delivers benefits to the performance of organisations. These benefits include the following:
  - reductions in the number and severity of injuries to employees and consequent savings in terms of human suffering and costs resulting from all parties having:
    - a greater understanding of the nature and importance of safety and health issues;
    - ownership of the solutions to safety and health issues and therefore an acceptance and increased observance of necessary behaviours; and
    - an appreciation that drawing on a wider range of knowledge and perspectives leads to better solutions to safety and health issues.
  - The forging of cooperative relationships, which will also be useful when addressing issues beyond those of safety and health matters.
- Employers and employees should genuinely commit to the principle of consultation on safety and health matters, recognising the ultimate responsibility for decisions, in accordance with their obligations, rests with senior mine management.
- Employers and employees should participate in meaningful, open and honest consultative processes on safety and health issues. The focus should be on flexibly achieving constructive outcomes, rather than on processes.
- For practical reasons, consultation may need to be between representatives of the employer and employees. While other approaches may be used when agreed to by

the parties, consideration should be given to the use of mechanisms such as freely elected employee safety and health representatives and fora such as safety and health committees, with employee representatives elected by their co-workers.

- 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 role and functions of Safety and Health Representatives should include, in addition to other rights and duties (such as to cause the cessation of work for safety reasons), responsibility for consulting with management in relation to any matter that affects the safety and health of employees at the mine.
- The role and functions of a Safety and Health Committee should include facilitating communication and cooperation in initiating, developing, and implementing measures designed to ensure the safety and health of employees at the mine.
- The responsibilities of employers and mine managers should include:
  - consulting with staff (including through Safety and Health Representatives and Safety and Health Committees) on intended changes to the mine or plant or substances used at the mine where those changes may reasonably be expected to affect the safety and health of employees at the mine.
  - consulting with employees in relation to any matter that affects the safety and health of employees at the mine.
- The responsibilities of employees should include:
  - participating constructively in consultative processes; and
  - adhering to the safety and health requirements, which are agreed to through the consultative process.
- Safety and Health Representatives and Committee members representing employees are to be afforded protection, treated no less favourably than other employees, allowed opportunity and freedom to reasonably undertake their roles and provided with suitable training.
- Irrespective of specific legal requirements of them, employers are encouraged to initiate the formation of safety and health consultative mechanisms, even when employees have not formally requested them or where the number of employees at the mine is below that specified in legislation.
- Where Safety and Health Committees have been formed there are to be at least as many employee representatives as there are employer representatives.
- Administrative arrangements for setting up and maintaining consultative arrangements are to facilitate and contribute to the overall culture of consultation.
- A Government official is to be provided with the authority to resolve conflicts over consultation arrangements. There may be value, also, in requiring periodic assessment by regulators/officials of effectiveness of site consultation mechanisms.

CONSULTATION AT THE STATE INDUSTRY LEVEL

Consultation also occurs at the industry level within each jurisdiction. At this level, consultation is usually tripartite in nature, involving employer representative bodies, employee representative bodies and government. As with consultation at the workgroup or workplace level, some jurisdictions have provided for arrangements under legislation aimed specifically at the mining industry. In other jurisdictions these arrangements exist under general occupational health and safety legislation.

A set of standard guidelines for such consultation is proposed, to help improve consistency between jurisdictions, enhance cooperation and reduce duplication of effort. They are designed to allow local variations to be made where needed.

Proposed guidelines for consultation at the State industry level

- Consultation between Government (as the regulator of mining activity) management and employees on safety and health issues at the industry level is an intrinsic feature of best practice in the mining industry.
- This consultation should ensure that there is communication across the industry about relevant occupational safety and health issues and that there is proper representation and open discussion between industry, employee representatives and government regulators on the development of policy and legislation.
- Accordingly, each State and Territory shall have arrangements for consultation on safety and health at mines in place that include equal representation from government, industry and employees.
- The terms of reference for these bodies should include the following:
  - reviewing the effectiveness of legislation relating to safety and health at mines;
  - providing leadership to the mining industry in the development of safe and healthy workplaces;
  - monitoring, analysing and reporting on the safety and health performance of the mining industry;
  - initiating and developing programs (including research) designed to prevent injuries to mine workers;
  - communicating with and promoting safety and health to employers and employees; and
  - sharing relevant information at state and national levels.
- These bodies should provide advice to the Minister responsible for administering safety and health legislation that applies to mining in that State/Territory.

CONSULTATION AT THE NATIONAL LEVEL

No specific consultative arrangements presently exist at the national level,, although each of the principal stakeholders— industry, government and unions — is actively, if independently, involved in OHS activities.

Under the *National Mine Safety Framework*, consultation should "…..foster regional and, where relevant, national and trans-national consultation between stakeholders to ensure that information flows to promote improvement in industry practices". Emphasis in any national structure, therefore, should be given to developing consultation processes that:

- ensure nationwide legislative consistency;
- foster innovation and improvement; and
- complement, rather than duplicate, those addressed in workplace and State-based consultations.

A proposed structure for consultative arrangements to help achieve this outcome is set out below.

A draft model for consultation a the National level

- A tripartite, nationally based group be designed.
- The Terms of Reference for this group to include:
  - facilitating legislative consistency in order to clarify and make unambiguous the duties of stakeholders in the industry;.
  - fostering innovation and improvement in safety and health through the industry;
  - sharing information in order to reduce duplication of effort;
  - ensuring that shared information is feedback into state industry processes and down to workgroup or workplace level; and
  - strategically improving mine safety consistent with the National OHS Strategy 2002-2012.
- Membership of the group to include:
  - industry representatives (4 members eg Coal, Metalliferous, Extractive, OHS specialist);
  - employee representatives (4 members representing relevant industry sectors, including an OHS specialist);
  - Conference of Chief Inspectors of Mines (3 members); and
  - National Occupational Health and Safety Commission (1 Member).
- The group's functions are advisory; it will have no executive role in mine safety management.
- All members of the consultative body will take responsibility for ensuring there is effective promotion of consultation outcomes in their jurisdictions.
- The Conference of Chief Inspectors of Mines to determine, in consultation with other participants, appropriate arrangements for meetings. CCIM to also provide secretariat, record the proceedings of meetings, and ensure that issues raised in the course of these meetings are brought to the attention of the Ministerial Council through its Standing Committee of Officials.

STRATEGY 7
RESEARCH

INTRODUCTION

Purpose

Governments have a role in fostering effective research into occupational safety and health in mining so that evidence can inform prevention activities.

The importance of a well-structured research effort is well demonstrated in the National OHS Strategy 2002-2012, released by the Workplace Relations Ministerial Council:

> *"Research adds to the information and advice available for determining OHS priorities and practical prevention approaches. Australia's own research capacity must be developed with a strong focus on practical risk controls in the workplace. A coordinated approach is required for allocating research resources within Australia and to ensure that the whole of Australia is able to draw on available expertise. Actions include:*
>
> - *Establishing research priorities, cooperative arrangements and networks;*
> - *Exploring partnerships between areas concerned with public and occupational health;*
> - *Improving communication with national and international OHS research bodies."*

Research and development is a key to the future well-being of the industry. A national approach will be more effective and efficient than if each jurisdiction addresses R&D issues independently. Potentially, international advantages can also be realised.

The discussion which follows outlines a range of issues that require attention if there is to be consistency of approach across jurisdictions and the potential benefits of a concerted R&D effort are to be realised. National consideration of these issues will be required:

- to inform governments' consideration of policies and legislation; and
- enhance industry coordination and involvement.

Scope

Initially, the development of a national approach will focus on exploring what organisations are conducting what research. This will help identify current priorities and the level of effort being directed to them, as well as indicate possible areas for attention.

In the longer term, there is a need to develop a sustainable approach to national support for research, covering processes for identifying need, prioritisation, garnering funding support and dissemination of outcomes.

Definitions

For the purposes of this discussion, research is categorised as follows:

- **Basic research** — pure research with potential long term scientific benefits.
- **Strategic research** — directed research with medium term commercial objectives.
- **Competitive research** — focussed research with short term commercial gains.

Accountabilities

Role of Governments

Governments' role does not necessarily encompass direct sponsorship of specific R&D projects, particularly those that are undertaken by companies primarily for competitive reasons. It is a matter for companies and organisations to determine for themselves how best to avail themselves of broader Government R&D support mechanisms.

Governments' encouragement of research should be directed more towards basic or strategic research needs and the application of research findings; to discern research trends from the patterns of current projects and to use the knowledge of current research and statistical analyses to help determine ongoing research priorities.

Role of industry

The industry is primarily responsible for enhancing its competitiveness and sustainability, including by improved health and safety performance, through research.

Research organisations

Research organisations have a role in the coordination of research efforts involving industry, governments and researchers. There are a number of organisations, such as ACARP, ACR and MISHC that currently perform this role, at varying levels of detail.

Role of CCIM

The Conference of Chief Inspectors' of Mines (CCIM), with New South Wales and Queensland leading, is assuming responsibility for addressing the research role of Government within the context of the National Mine Safety Framework.

Its role will encompass advising governments on strategic issues relating to research requirements, as well as ensuring that the outcomes of research are appropriately disseminated. However, it is not a research organisation, nor a commissioner of research, in its own right.

Whether — and, if so, how — the CCIM can play an effective brokering role in identifying high priority or high value research projects and bringing together parties interested in undertaking and funding that research are important issues. The views of the industry, the research community and other interested parties generated through this discussion process will be central in determining the CCIM's ongoing role.

A STRATEGIC NATIONAL APPROACH TO RESEARCH

Current Research

There is a substantial body of current and completed research covering a broad spectrum of safety and health issues, categorised as follows:

- Diesel Emissions
- Dust Measurement and Control
- Fires, Explosions and Ventilation
- Ground Control
- Electrical Safety
- Hazard Detection & Warning Devices
- Hearing Loss prevention
- Injury Prevention & Equipment Design
- Occupational Illness and Health Hazards
- Surveillance
- Training and Education

These categories are consistent with the approach to classification used by ACARP. A detailed listing of relevant research organisations and current projects, based on these categories, is provided in the companion volume *Background and Explanatory Notes* to this discussion paper.

The detailed listing in the companion volume is, of necessity, a snapshot. It requires review to ensure that it is comprehensive but, more importantly, it requires ongoing effort to ensure that it remains up-to-date and useful.

Establishing close links with organisations involved in funding research and administering research grants — such as ACARP, NHMRC and NORA — as well as those actually conducting the research, will be particularly important in this context. They, in turn, will benefit materially from the overview provided through this strategy.

By developing key priority areas within these categories and tracking research being undertaken any gaps would then be identified for as priority research areas which would be supported by the CIMs. This could then be communicated to the Australian bodies that fund research and a process be developed to influence the research that is undertaken (but not normally to manage the projects).

Developing an effective process for managing, consulting on and reviewing the research data base will be an element in the NMSF implementation process.

Identification of future priorities

The data base will provide a valuable guide to priorities and areas of need.

Analyses of safety and health data, and the consultation mechanisms established within jurisdictions are also important means of identifying key areas for research.

Determining Research Topics

There would be considerable value in applying a standard process to the development of research proposals on priority research topics. The steps that might be encompassed in that process include the following:

- Determination of need; existing consultation mechanisms should be functioning in a way which identifies areas of need. Statistics, experience or credible anecdotal evidence may provide the basis of developing priority topics.
- Consultation; the development of agreed research topics should be supported for its outcome to be effective. Funding support needs to be given in-principle.
- Committee of experts, interested parties addressing the issue/topic; a team of interested participants is generally regarded as beneficial in drafting a research proposal.
- Structure of proposal to include: nature of the problem/improvement sought, risk factors, risk controls, monitoring, if appropriate the design outline for new technology and/or improved processes, and potentially a form for reporting incidents to increase the researchers' knowledge of the problem.
- Draft for comment; a draft should be circulated for wider comment.
- Refinement; the working party to consider comments and refine the research proposal.
- Seek funding.
- Establish a research monitoring and adjusting committee.

Communicating research outcomes

An effective communication strategy in regard to research results/outcomes administered by the CIMs would also enable the Conference to further influence research directions by enhancing strategic links with those agencies that fund research projects. Such strategic links may include active participation with the funding bodies in reviewing projects, and inviting the funding bodies to use the expertise in Government to assist as project monitors.

Guidance Material

Guidance material discussed earlier in this paper is a key element in supporting industry compliance with safety and health requirements in the industry. Ideally, links should exist between research and the industry's body of knowledge encompassed in guidance material — in particular the National Minerals Industry Handbook — so that the benefits of research are quickly and effectively transferred to mine sites.

APPENDIX : CONFERENCE OF CHIEF INSPECTORS OF MINES

The Conference of Chief Inspectors of Mines (CCIM) consists of the most senior technical officers with regulatory responsibility and accountability for mining operations in the States and the Northern Territory.

The CCIM's vision is to achieve and maintain excellence in safety and health performance in the Australasian mining industry. Its key result areas are:

- provision of timely and high quality advice on matters referred to it by the Ministerial Council on Mineral and Petroleum Resources and its Standing Committee of Officials;
- provision of benchmarked mines inspectorate services, including site assessments, authorisations of various kinds, performance monitoring, and enforcement practices for industry on behalf of government and the community; and,
- coordination and provision of safety and health guidance material across jurisdictions.

The CCIM reports to the Ministerial Council on Mineral and Petroleum Resources' Standing Committee of Officials. The Commonwealth, through Geoscience Australia, provides administrative and secretariat support.

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