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# MSR Implementation and Progress

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## ABSTRACT

In November 1996 the NSW Minister for Mineral Resources, Hon Bob Martin MP, commissioned ACiL Economics and Policy Pty Ltd to conduct a wide ranging review of safety within the New South Wales mining industry.

The review was a response to a disturbing number of fatalities which had occurred in the industry during the Minister's term of office together with a number of alarming near misses where serious failures in mining systems had occurred. Shortly after the review was commissioned, four mine workers died at Gretley Colliery near Newcastle. An inquiry is currently being conducted into the incident.

ACiL were given the following terms of reference for the MSR (MSR):

1. Identify key issues which need to be addressed before a significant and measurable improvement in mine safety performance, and an observable reduction in the potential for serious safety incidents, can be expected.
2. Explore options for addressing these key issues, through consultation with a wide range of stakeholders.
3. Consider how the findings of the Warden's Court Inquiry into the 1994 Moura Mine disaster should be applied in New South Wales.
4. Evaluate the role, activities, structure, employment conditions, and resourcing of the State's Mines Inspectorates in light of the identified key issues.
5. Evaluate existing legislative provisions in the light of the identified key issues.
6. Provide Government with recommendations on how mine safety in New South Wales could be enhanced, with particular regard to the potential contribution of the Inspectorates.

The ACiL report titled "Review of Mine Safety in NSW" was tabled in Parliament by the Minister in April 1997. The review considered industry safety performance and its measurement through considering available statistics, drawing on submissions and, predominantly seeking the views of a broad cross section of industry and Government personnel. This included mine managers, inspectors, union officials and the workforce.

In its report, the MSR makes numerous observations concerning issues of safety and the mining industry. Arising from those observations the review made forty four (44) recommendations (See Appendix A) for either consideration or action to address the issues identified.

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Coal Mining Inspectorate and Engineering, NSW Department of Mineral Resources

## THE RECOMMENDATIONS

The recommendations covered everything from safety measurement, safety incentives, communicating commitment, workforce involvement, training, contractors, risk management, the Inspectorates, legislation and regulation, and implementation of the Moura inquiry recommendations.

The Minister has expressed support for all 44 recommendations and conveyed an expectation that they be addressed.

## MANAGEMENT STRUCTURE

A two level tripartite structure was set up to address the recommendations - a 'Steering Group', comprising a high level mix of representatives from mining companies, unions and government, including the Minister for Mineral Resources; and an 'Implementation Group', chaired by Professor Dennis Else, Chairman of the National Occupational and Safety Commission.

Four Task Groups were set up by the Implementation Group to carry out the work required to address the recommendations.

The management structure for the implementation of the *MSR's* recommendations therefore is shown in Fig.

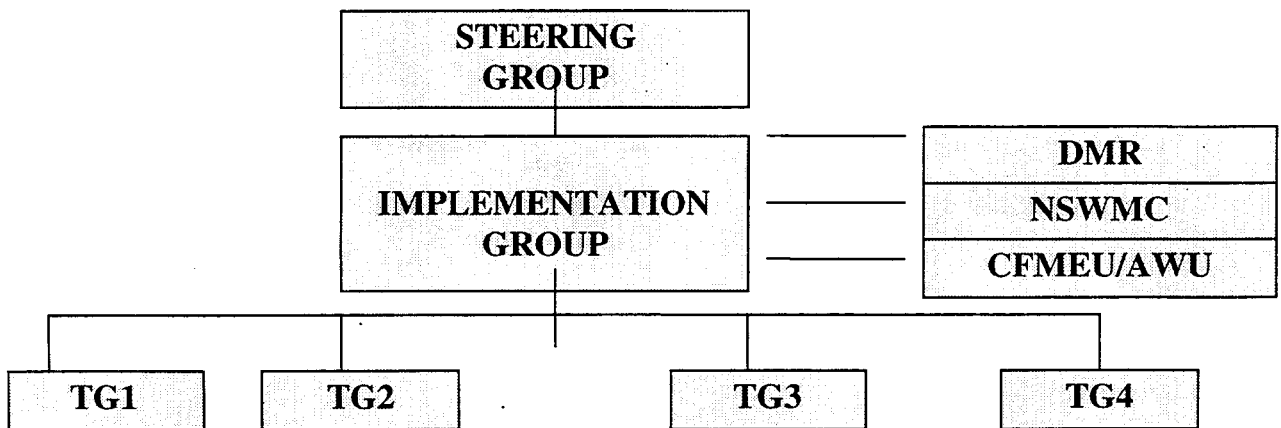


Fig. 1 – Management structure of recommendations

Carriage of a number of issues raised by the *MSR* recommendations have been given to tripartite Task Groups, the NSW Minerals Council or individual mine sites for implementation:

- Remote control equipment (recommendation 15) - this is being dealt with by **Task Group 1** (chaired by John Waudby, Department of Mineral Resources);
- Performance measures and information sharing (recommendations 1,2,3,5,8,18) - these are being dealt with by **Task Group 2** (chaired by Garnett Halliday, Cadia)
- Principles governing risk assessment, a two-tiered regulatory approach and mine safety management plans (recommendations 16,39,41) are being dealt with by **Task Group 3** (chaired by Gordon Galt, Cumnock Colliery). This Task Group also has partial responsibility for contractor issues (recommendation 14).

Inspectorate and Moura issues( recommendations 23-38, 40, 42-44) are being addressed by **Task Group 4** (chaired by Bruce McKenney, Department of Mineral Resources)

- The **NSW Minerals Council** has carriage of the development of guidelines for site safety performance measurement, involvement of site personnel in the formation of safety targets, the impact of production bonuses, the improvement of safety information exchange through CEOs forums, and the promotion of guidelines for contractor safety management (recommendations 4, 5, 6, 9 and 13)  
Individual **mine sites** are responsible for implementing a wide range of issues including, review of safety incentive schemes, promotion of middle management commitment to safety initiatives, worker involvement in assessment and management of core risks, and training for managers and workers (recommendations 5, 7, 8, 10-12, 14, 17, 19-22, 38, and 41).

The Implementation Group plays an oversight role to ensure mines implement their recommendations and has a similar role in regard to 'training' issues (recommendations 6, 19-21 & 43).

## PROGRESS

### *Task Group 1 - introduction and use of remote controlled equipment underground*

Task Group 1 has completed an issues paper and an options and recommendations paper on the remote control of mining equipment. Draft documents entitled, 'Guidelines for the Use of Remote Controlled Mining Equipment', and 'Guidelines for the Design of Remote Control Systems for Mining Equipment' have been circulated widely to the mining industry for comment and input.

The 'use' guidelines will be finalised and published in early 1998 and take into account a fatality involving remote controlled equipment at United Colliery in November 1997.

The 'design' guidelines are also expected to be finalised and published in early 1998.

The Task Group will be notifying mines of the existence of both guidelines and will be running a seminar in March 1998. The Group will also be developing a self-auditing process, in addition to its recommendation that the Department of Mineral Resources conducts audits to monitor the use of the document. The Group has also recommended that there be a tripartite review of the guidelines and audit results.

### *Task Group 2 - performance measures and information sharing.*

A discussion paper 'Mix of Measures for Industry OHS Performance' has been drafted to canvas views on the proposed industry mix of measures and has been circulated to industry. This document highlighted the *MSR's* criticisms of industry's reliance on lost time injury frequency rates as the major performance indicator.

The paper offered ways in which industry could take the lead and explore alternative methods to more effectively monitor industry performance.

For example, indicators which cover culture, systems and outcomes have been developed to provide a spread of measures across all areas related to the current and future performance of the industry. Task Group Two recommended that these indicators should be reviewed at least every two years with a view to change and improve.

Task Group Two has also drafted guidelines 'Mining Enterprise Measurement of OHS Performance for Mining Enterprises' along with an accompanying 'how to' document 'Moving to the New Way of Measuring of Measuring OHS Performance' prepared by the NSW Minerals Council with the assistance of their OHS Committee and Andrea Shaw. Both documents were distributed widely for comments.

Final recommendations will be submitted to the Implementation Group by late January and an implementation plan will be completed in February. A final report will be prepared for the Implementation Group meeting on 2 April 1998.

An 'Incident Reporting' form has also been designed and the Group has sought feedback/comments from industry along with e-mail addresses/fax numbers in preparation of a high potential incident database.

#### *Task Group 3 - risk assessment, a two-tiered regulatory approach, Mine Safety Management Plans, and Contractor Issues*

A draft discussion paper on the design of a new mine safety regulatory system has been completed on behalf of the NSW Minerals Council by SYSTEC P/L. The Group has reviewed the paper and will be consulting stakeholders during January and February. A final report (including an implementation plan) on the recommended principles for a new regulatory system and is being prepared for April 1998.

In brief, the 'implementation plan' will consist of:

*Step 1: Current phase (complete by February 1998)* Seek Stakeholder and Ministerial in-principle support for the core features of the recommended regulatory model in the SYSTEC paper. Determine if open cut sector is 'in' or 'out' of this process.

*Step 2: Design (Timeframe 3-6 months)* Design an action plan to implement the model, including consultative arrangements and an action plan detailing how legislative, policy and administrative change would be achieved.

*Step 3: Implementation (Timeframe 3-4 years, including a transition period)* Implement the actions contained in the action plan. A transitional arrangement to allow companies to move to compliance would be necessary.

*Step 4: Review (Timeframe ongoing)* Regular reviews of the implementation and effectiveness of the regulatory framework.

The Task Group has also reviewed and assessed Mine Safety Management Plan (MSMP) models and will prepare a work book to assist mine sites by February 1998.

The issue of contractor OH&S is also being investigated, in particular the development of a register of contractors.

#### **Task Group 4 - inspectorate and Moura related issues**

Task Group Four has appointed project managers to supervise and monitor the implementation of the twenty MSR recommendations it has responsibility over.

It has also prepared a status report that looks beyond addressing the recommendations - the MSR itself states that the individual recommendations provide a 'starting point response' and that efforts will need to go further.

The report describes the changes which will be made to the Department's Mine Safety and Environment Division including a new structure, resource requirements, and changes to work priorities and patterns. The target date for restructuring is 1 July 1998.

This structure is based on a regionalised and integrated Safety Operations Unit, where the State has been divided into five new areas and a single manager in each area will be responsible for both coal and non-coal operations. The Sydney Office (Head Office), will have a Technical Services Group, Information Group, Investigation Group and an Environmental Group.

An implementation program is also described which sets out four issues of high priority - major hazard management, emergency readiness, a small mines program and developing and implementing the Mine Inspection Act General Rule.

**NSW Minerals Council - guidelines for measuring safety performance, on site involvement re:safety targets, exchange of information via CEO forum, promotion of contractor OHS guidelines**

Before considering a detailed study on the safety impact of production bonuses (and of possible measures available to address any negative effects), the NSW Minerals Council (NSWMC) has conducted a survey to gather basic information on the extent and nature of incentive schemes operating within the industry. The results are being collated and options/recommendations being offered to the Implementation Group in early 1998.

The NSWMC has also conducted a CEO forum in August 1997 'to allow a greater exchange of information on safety approaches'. A second forum is scheduled for early 1998.

Its contractor OH&S guidelines have also been finalised and 'promotional' workshops have commenced. A second workshop was held in Cobar in November 1997 and additional workshops are planned for Broken Hill and the Hunter Valley in the new year.

**Mine Sites - review of safety incentive schemes, promotion of middle management commitment to safety initiatives, worker involvement in assessment and management of core risks, training for managers and workers**

New South Wales mine sites were informed of their responsibilities to implement 14 of the recommendations in a letter from the NSW Minister for Mineral Resources in July 1997. A newsletter circulated in August 1997 and in a letter from the Chairman of the Implementation Group sent in September 1997 were also distributed.

The Implementation Group then distributed a questionnaire to all mine sites (with more than four employees) in early October 1997 to determine the level of implementation of the 14 recommendations. Responses to the questionnaire are currently being collated with future action to be determined.

## **CONCLUSION**

The MSR's Steering Group meets on 9 April 1998- exactly one year after the Review was tabled in Parliament by NSW Minister for Mineral Resources, Bob Martin, MP.

Much of the work required to implement the 44 recommendations from the MSR are expected to be completed or near completion at this time. However, to continue to improve industry safety performance, industry participants must be constantly alert to their everyday actions and decisions.

The MSR itself states that the individual recommendations provide a 'starting point response' and that although actioning the recommendations will have some impact on the industry safety culture, **efforts will need to go far beyond this.**

'Fundamentally, industry participants must be constantly alert to the safety incentives and disincentives produced by their everyday actions and decisions. It is only through this vigilance that we can expect the improvements that are achieved to be sustained over the longer term'.(Review of Mine Safety in NSW by ACIL Economics and Policy Pty Ltd., 1997).

## **REFERENCE**

ACIL (1997), *Review of Mine Safety in NSW*, ACIL Economics and Policy Pty. Ltd.

NSW Dept MIN Resource 1997, Report by ACIL, *Review of Mine Safety - NSW* (NSW Dept Mine Resources – Sydney)

## **APPENDIX A - MSR RECOMMENDATIONS**

### **Measuring safety**

1. NSW mining industry safety performance be measured on a mix of indicators. This mix might include LTIFR, FIFR, Disabling injury and progress in managing core risks.
2. The exact mix of measures be determined on a tripartite basis as a matter of urgency
3. The NSW DMR adopt this mix of measures and use it in the targeting of the Inspectorates' safety related activities.
4. The NSWMC develop guidelines for use by mine operators in determining how individual site safety performance is to be measured.

### **Safety aims**

5. Companies give greater attention to involving those on site in the formation of safety targets.

### **Safety incentives**

6. The industry commission a more detailed study of the safety impact of production bonuses and of possible measures available to address any negative effects.
7. Companies re-evaluate their existing safety incentive schemes with a view to establishing their actual safety impact as distinct from their effect on LTIFR.

### **Roles played by key individuals**

8. Company boards take a more active role in requiring reporting on a mix of safety indicators which more accurately reflect site safety performance.
9. The NSWMC convene a CEO level safety forum to allow greater exchange of information on safety approaches.
10. Mine operators give high priority to promoting middle management commitment to and ownership of safety initiatives through the effective involvement of middle managers in the development and implementation of all such initiatives.
1. Mine operators provide training and support to enable middle managers to effectively carry out their role in communicating safety requirements to work groups under their control and ensuring compliance with safe operating procedures.

### **Workforce involvement**

12. Companies re-evaluate their approaches to involving workers -in safety management with a view to achieving greater worker participation particularly in terms of the assessment and management of core risks.

### **Contractor safety involvement**

13. The NSWMC take an active role in promoting the use of the Guidelines for Contractor Occupational Health and Safety Management by its members.

14. Companies devote greater effort to the safety aspects of contractor selection and management, given that contractor safety performance in the broad remains a problem area.

### **Engineering and equipment**

15. There be a tripartite examination of safety issues associated with the introduction of remote controlled equipment underground.

### **Risk management**

16. The NSWMC and Inspectorates continue to promote risk assessment and management approaches as a valuable safety management tool.
17. Companies review their approaches to core risk assessment and management in the light of the identified concerns.

### **Collation, analysis and use of accident information**

18. A tripartite group be asked to develop proposals for stakeholder consideration on how information sharing on accident cause can be improved. The group should in particular focus on the following areas: provision of information on serious incidents, and accidents across the industry, (that is between operators); and more effective means of communicating this information to mine middle managers and the mine workforce.

### **Training**

19. Companies introduce structured safety and communications related training for Mine Managers, and mining professionals.
20. The levels of hazard awareness training provided to mineworkers in both the coal and metalliferous sectors be increased.
21. Each operation review its emergency procedures training.
22. Test evacuations of all or parts of sites should be an integral aspect of operations' approaches to emergency preparedness.

### **The inspectorates**

23. The Department of Mineral Resources devolve environmental responsibilities to other officers with specific environmental expertise, and require the Inspectorate to focus wholly on matters related to minesite safety and health.
24. The Department move to create support positions of Mines Safety Officer with the detailed job description for such officers to be determined within the Department.
25. The Department give consideration to the introduction of cross-inspection as a mechanism for maximising the best use of Inspectorate resources.
26. Inspectorate policies and procedures on investigation and enforcement be developed and published.
27. The creation of a discrete Accident Investigation and Analysis Unit within the Inspectorate.
28. The Department of Mineral Resources determine the number of additional Inspectors required in the light of approaches taken to the redistribution of environmental responsibilities and the creation of Mine Safety Officer positions.



29. The Department introduce a more systematic approach to the prioritisation of Inspectorate activities.
30. Physical examinations of site operations continue to be a major aspect of the role played by Inspectors in both the coal and metalliferous sectors.
31. All Inspectors conduct both pre-announced and unannounced minesite visits, and that there be a requirement for sufficient unannounced visits to create a perception of a significant likelihood of an unannounced visit at any time.
32. The Department act without delay to resolve outstanding salary issues by bringing Inspectorate salaries into closer parity with those paid by other Inspectorates and by industry.
33. In the event that a significant increase in Inspectors remuneration levels is proposed, all affected positions be declared vacant and advertised.

#### **Legislation and regulation**

34. The Inspectorate adopt a more active approach to enforcement of the metalliferous General Rule.
35. A database on the status of implementation of requirements under the General Rule be developed and maintained by the Inspectorate.
36. The Department act immediately to establish the status of the implementation of the General Rule among smaller operators with a view to determining what particular assistance may be required.
37. Timeframes for the implementation of provisions under the General Rule be established and promulgated.
38. Companies, unions, and Government, devote further effort to informing mineworkers about the General Rule and its implications.
39. There be an immediate tripartite re-examination of legislative options for the coal sector, particularly as regards the practicality, and likely impact of, a two tiered regulatory approach.
40. Further consideration be given to the priority presently being given to the development of a single piece of mining legislation in NSW.

#### **Moura inquiry implementation**

41. NSW coal operators be required to prepare Mine Safety Management Plans to identify and manage all core risks.
42. As a first step, the Metalliferous Inspectorate be required to report to the Minister in detail on the possible application of MSMPS, and of other Moura Inquiry recommendations, to the metalliferous sector.
43. The Moura Inquiry training and communications recommendations be implemented by NSW coal industry stakeholders including the Inspectorate.
44. The DMR chair a NSW stakeholders group charged with determining the applicability of the Moura Taskgroup recommendations in NSW.