

Guidance Note QGN09

Reviewing the Effectiveness of Safety and Health Management Systems

***Coal Mining Safety and Health Act 1999
Mining and Quarrying Safety and Health Act
1999***

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GUIDANCE NOTE – QGN9

Reviewing the Effectiveness of Safety and Health Management Systems

This Guidance Note has been issued by Safety and Health, of the Department of Mines and Energy, to provide assistance to operators in meeting their obligations to review the effectiveness and implementation of safety and health management systems at Queensland mines and quarries.

This Guidance Note is not a Guideline as defined in the *Mining and Quarrying Safety and Health Act 1999*. In some circumstances, compliance with this Guidance Note may not be sufficient to ensure compliance with the requirements in the legislation.

Guidance Notes may be updated from time to time. To ensure you have the latest version, either check the Department of Mines and Energy website or contact your local inspector of mines.

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Reviewing the Effectiveness of Safety and Health Management Systems

1 Foreword

The Queensland *Coal Mining Safety and Health Act 1999* and the *Mining and Quarrying Safety and Health Act 1999* protect the safety and health of mine workers and those who are affected as a result of mining operations.

These statutes require that risks to safety and health from mining operations be identified and controlled to within acceptable limits and be as low as reasonably achievable (referred to as an acceptable level of risk)¹. One of the primary ways this is achieved is that each mine develops a safety and health management system that identifies hazards, examines attendant risk and ensures that these risks are controlled within acceptable limits. Under the legislation the site senior executive and the mine operator are given separate but complementary obligations to ensure that this is achieved².

The site senior executive has the obligation to develop and implement the mines safety and health management system and to ensure the risk to persons from mining operations is at an acceptable level. The mine operator has the obligation to audit and review the system to ensure it is effectively controlling risks to within acceptable levels.

It is important for the operator to be aware that obligations cannot be transferred from the operator to the site senior executive in the discharge of this obligation. Attention is drawn to the provisions of the legislation that prevents a person with obligations from transferring the obligations to another person³. The question has arisen on how to assess the effectiveness of a safety and health management system and this Guidance Note addresses this question.

The basis of the approach taken in the Guidance Note is to consider a safety and health management system as a dynamic system consisting of various subsystems each carrying out a vital function. Accepting this model if each subsystem is found to be working effectively then the overall system can be considered effective. This approach parallels the approach taken in diagnosing the condition of systems in science and engineering.

¹ Acceptable level of risk

Coal Mining Safety and Health Act 1999: section 30: “How an acceptable level of risk is to be achieved”; *Mining and Quarrying Safety and Health Act 1999*: section 27: “Risk management”

² Obligations

Coal Mining Safety and Health Act 1999: section 41 “Obligations of coal mine operator”, subparagraphs (1)(e) and (f), section 42 “Obligations of site senior executive”, subparagraphs (a) and (c); *Mining and Quarrying Safety and Health Act 1999*: section 38 “Obligations of the operators”, subparagraphs (1)(d) and (e); section 39 “Obligation of site senior executive”, subparagraphs (a) and (c)

³ Transfer of obligations

Coal Mining Safety and Health Act 1999 section 36; *Mining and Quarrying Safety and Health Act 1999* section 33; “Person not relieved of obligations”-

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The obligation placed on mine operators regarding safety and health management systems is expressed in the terms “audit” and “review”. Auditing is simply the mechanism by which information is obtained for a particular purpose. For example obtaining information to determine compliance (either with legislation or corporate standards) is a compliance audit; for the subject at hand obtaining information to determine effectiveness is an effectiveness audit.

It should be noted that most audits carried out in industry are compliance audits and the number of effectiveness audits carried out has been limited. The legislation does not define the word “audit” however industry has accepted the meaning included in the various standards; namely to systematically examine documents and records to sufficient depth to verify whether the system meets some established criteria. Some definitions of auditing contain elements of review (see Definitions and Appendix B).

The term ‘review’ in this document is used in the sense that the information obtained by auditing is critically evaluated; in the Guidance Note this means evaluating whether the safety and health management system is keeping risk at an acceptable level.

Australian Standard “AS/NZS 4804 Occupational health and safety managements systems – General guidelines on principle, systems and supporting techniques clause 4.5 ‘Review and Improvement’” states the following:

“Management review is a cornerstone of the management system, providing an opportunity for senior management to regularly review the operation of the system and its continuing suitability in the face of change to make adjustments to build upon and improve its effectiveness.”

This Guidance Note endorses this statement.

2 Purpose and scope

This Guidance Note is provided to assist operators to meet their obligations⁴ under the mining safety and health legislation to review the effectiveness and implementation of a mine's safety and health management system to ensure the risk to persons from mining operations is at an acceptable level.

The document is not intended to be an exhaustive treatment of reviewing a safety and health management system but a guide. For example two areas not specifically mentioned in this Guidance Note which a concerned mine operator would review in detail are compliance with legislation and the competence of mine workers to carry out the tasks. These areas are extensive enough to be worthy of separate reviews.

Any review carried out by an operator would have to take into account the conditions at a mine such as the complexity and associated hazard levels and past performance in establishing and maintaining an acceptable level or risk.

The Guidance Note identifies and examines some of the key subsystems that would be included in an effective safety and health management system if the system is to deliver an acceptable level of risk and remain capable of accommodating the changing circumstances that occur at every mine site.

The document is neither a recognised standard as defined in the *Coal Mining Safety and Health Act 1999* nor a guideline as defined in the *Mining and Quarrying Safety and Health Act 1999*⁵.

⁴ *Coal Mining Safety and Health Act 1999*: Part 3, Safety and health obligations, s41(1)(e) & (f); *Mining and Quarrying Safety and Health Act 1999*: Part 3, Safety and health obligations, s38(1)((e) & (f)

⁵ *Coal Mining Safety and Health Act 1999*: Part 5, Recognised standards; *Mining Quarrying Safety and Health Act 1999*: Part 5, Guidelines

3 Introduction

An effective safety and health management system is a dynamic system that when implemented ensures that risks to the safety and health of mine workers are at an acceptable level and leads to continuously improving safety and health standards at the mine.

The site senior executive and the operator of a mine both have obligations regarding a mine's a safety and health management system. The site senior executive has an obligation to develop and implement a safety and health management system with the aim of ensuring the mine controls risks to an acceptable level; the mine operator has the obligation to review the site senior executive's safety and health management system and determine whether it is implemented and working effectively and if necessary require any a corrective action to be taken to make it effective.

This Guidance Note is designed to be a diagnostic tool to assist mine operators to meet their obligations to ensure the system is effectively controlling risk to an acceptable level.

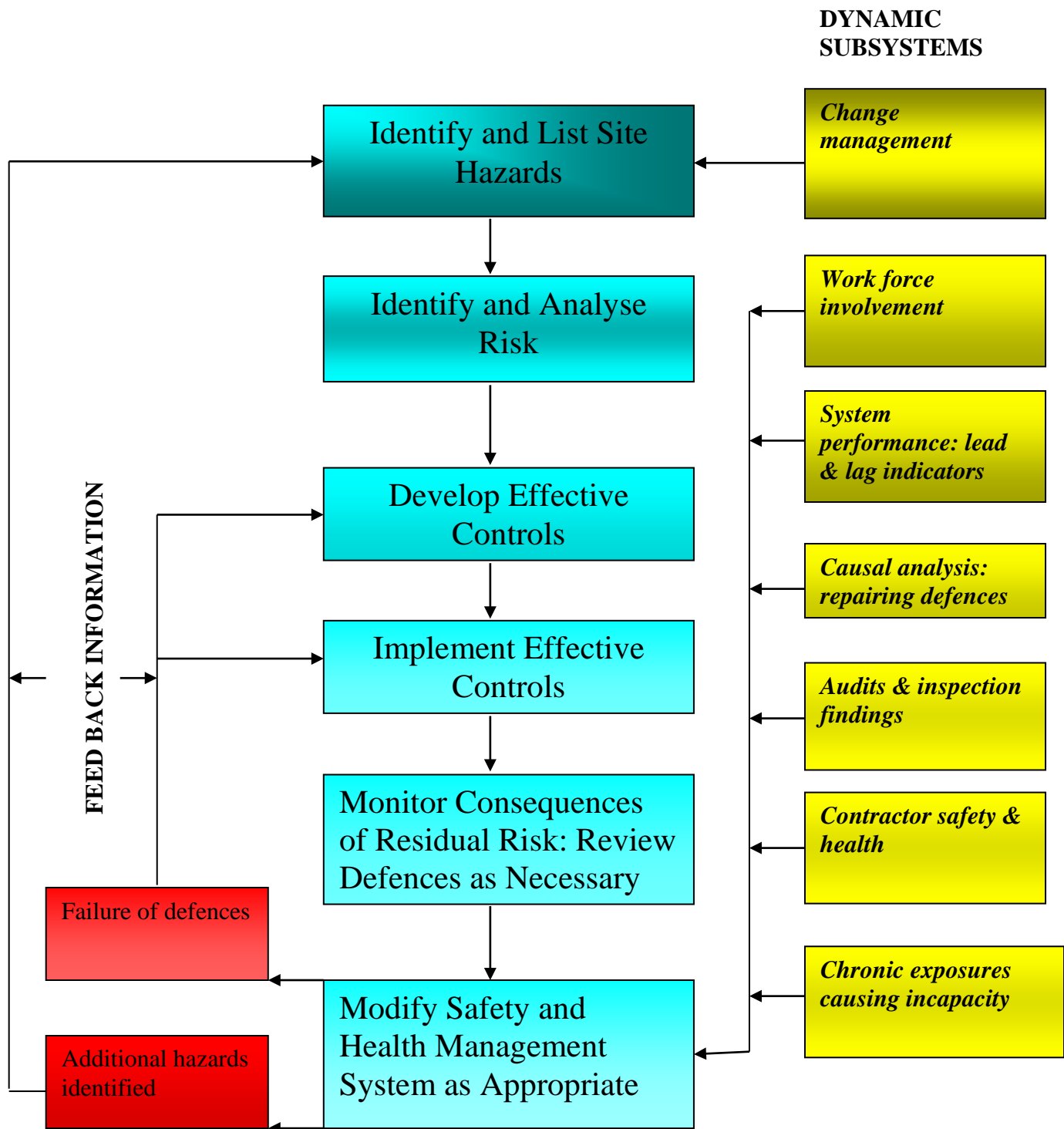
The nature of a safety and health management system and its dynamic subsystems is illustrated in the flow sheet titled "Safety and Health Management System", page 8. The operation of such a system and its subsystems is discussed and particularly how the various dynamic subsystems contribute to keeping risk within an acceptable level.

The system is examined with respect to the two requirements: to achieve a level of risk within acceptable limits; and as low as reasonably achievable.

Subsystems identified include:

- *Change management*
- *Work force involvement*
- *System performance: lead and lag indicators*
- *Causal analysis: repairing defences*
- *Audit and inspection findings*
- *Contractor safety and health*
- *Chronic exposures causing incapacity*

4 Safety and Health Management System



Objective: To achieve an acceptable level of risk and improving safety and health standards and performance

5 Obligations of operators and site senior executives

Confusion has arisen over whether the obligation of an operator to review the effectiveness and implementation of a mine safety and health management system can be discharged by the operator delegating this duty to the site senior executive. This approach introduces doubt as to whether operators have indeed met their obligations under the legislation; the legislation quite specifically precludes the transfer of an obligation from one person to another⁶.

It would be expected that once a site senior executive developed and implemented a safety and health management system at a mine, some form of auditing would be undertaken on behalf of the site senior executive to ensure the system is working as intended. However any auditing controlled by the site senior executive would not be considered to meet the obligations placed on the operator to review the effectiveness and implementation of the system.

Doubt regarding the discharge of the operator's obligations will be greatly reduced, if not eliminated, if the review of a mine's safety and health management system is undertaken by suitably competent people, engaged by the operator, who are independent of the site senior executive and the mine being audited.

The intervals of the review should be determined by the results of previous reviews and recent safety performance of the mine. It is suggested that decisions on who should conduct the review, and at what intervals the reviews be carried out, are made at corporate level.

6 Acceptable level of risk

The reason a safety and health management system exists is to ensure the risk to mine workers safety and health is maintained at an acceptable level. A secondary but important objective is to generate ongoing improvement to safety and health standards at a mine.

To do this effectively a system must contain, in addition to the mechanisms to identify and analyse the risks and develop controls, adequate subsystems to detect weakness (accidents and high potential incidents etc) in existing controls and allow corrections. The subsystems must also allow for the monitoring of any site changes that affect risks and allow the development of appropriate controls to control these risks.

⁶ *Coal Mining Safety and Health Act 1999*: section 36 "Persons not relieved of obligations"; *Mining and Quarrying Safety and Health Act 1999*: section 33 "Persons not relieved of obligations"

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An acceptable level of risk is defined in the legislation⁷ as within acceptable limits and as low as reasonably achievable. The requirement for the system to be dynamic cannot be over emphasised. An effective safety and health management system will soon become ineffective if the subsystems cannot detect and repair weaknesses to the existing system or accommodate site changes.

In summary, the subsystems labelled as dynamic in the diagram “Safety and Health Management System” (Part 3) have two important functions; they manage change and monitor the effectiveness of existing system.

The effectiveness of a safety and health management system is to a large extent dependent on the effectiveness of these dynamic subsystems and a review of a safety and health management system to determine effectiveness must closely examine these subsystems to ensure they are effective.

6.1 Risk within acceptable limits

To achieve a level of risk within acceptable limits a mine must have processes which form part of the safety and health management system to:

1. Identify hazards including principal hazards⁸ on site, identify and analyse any associated risks and develop and implement controls. In developing controls the hierarchy of risk controls should be applied as appropriate to the level of risk determined.
2. Identify new hazards created on site as a result of change, identify and analyse any associated risks and develop and implement controls.
3. Monitor and record the consequences of residual risk.
4. Use the information obtained by 1 to 3 above to review the safety and health management system including, principal hazard management plans, standard operating procedures, standard work instructions, investigation techniques, risk management procedures etc and modify these as appropriate.

By their nature, principal hazards are associated with potential multiple fatalities, and care needs to be taken to ensure that they are properly audited and appropriately reviewed to ensure any audit recommendations are processed, i.e. adopted or rejected after analysis.

6.2 Risk as low as reasonably achievable

To ensure that risk is as low as reasonable achievable, the safety and health management system should include for the following:

⁷ *Coal Mining Safety and Health Act 1999*: section 29 “What is an acceptable level of risk”; *Mining and Quarrying Safety and Health Act 1999*: section 30 “Risk management”

⁸ Where a hazard is a principal hazard -*Coal Mining Safety and Health Act 1999*; section 20 “Meaning of principal hazard”- the safety and health management system must include specific principal hazard management plans to address these hazards- *Coal Mining Safety and Health Act 1999*; section 20 “Safety and health management system”, paragraph (3)(d);

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1. Holding regular safety meetings to provide and obtain information from the work force on safety matters and minute proceedings and recommendations. Where a number of major contractors work on a site the safety and health information from these contractors needs to be co-ordinated. One method being used to do achieve this requirement is for the site senior executive (or delegate) to attend regular meetings with contractor's safety and operational personnel to review contractor safety performance and ensure contractor's ongoing compliance with the mine's safety and health management system.
2. Ensuring that incidents and accidents are reported, monitored and properly analysed to identify immediate and underlying causes. An indication of an ineffective system is one in which incidents with the same underlying or root cause reoccur.
3. Monitoring and analysis of contractor safety and health performance. See section 10: "Contractor Safety Performance", for this important aspect of safety and health management in the mining industry
4. Carrying out regular safety observations, inspections and appropriate audits and establishing programs to address issues raised in these activities and monitor corrections.
5. Implementing requirements resulting from statutory inspections.
6. Using the information obtained from 1 to 5 above review the safety and health management system.

7 Workforce involvement

The workforce is the focus of the safety and health management system; the term is inclusive and involves all mine workers on site. As mentioned in 5.2(1), above regular safety management meetings involving the integration of contractor's employees are a necessity if risk as low as reasonable achievable is to be achieved.

However workforce participation goes much further than regular safety meetings at which safety issues are raised, analysed and acted on. A mine should have a system that describes how workforce participation is achieved on site including the workforce of contractors.

An operator's review would assess the effectiveness of the system developed on site to involve the workforce.

8 System performance: lead and lag indicators

An effective safety and health management system should have built into the system indicators to allow the detection of system malfunctions and allow the ongoing performance of the system to be assessed. For this purpose the system should include:

1. A suite of lead indicators
2. A suit of performance indicators measuring safety and health standards and performance (lag indicators)
3. Provision for the regular monitoring of lead indicators and review of performance indicator trends.
4. Provision for the regular examination of the information obtained from 1 and 3 above to determine safety performance.
5. Provision for reviewing and modifying the system when safety performance is deteriorating or not improving.

An effective safety and health management system contains both lead and lag indicators; lead indicators indicate whether the system is working effectively; lag indicators provide information on the results being achieved by the system.

The Chamber of Minerals and Energy of Western Australian “Guide to Positive Performance Measurement in the Western Australian Mineral and Resources Industry” provides excellent information on developing lead indicators and can be down loaded from the Western Australian Chamber of Mines and Energy web site www.cmewa.com.au ; go to “Occupational Safety and Health”, and select the guide from the publications list.

Lag indicators are important because, if recorded with integrity, they measure the success or otherwise of the safety and health management system in delivering and improving safety and health standards at the mine.

9 Causal analysis: repairing defences

The activities at a mine site involve people, materials and machines. It is the purpose of mine management to organise these factors of production in the most economically efficient manner to undertake the activities.

The Queensland mining legislation places legal obligations on all people involved in mining activities to ensure that these activities are carried out with an acceptable level of risk. However the site senior executive and the mine operator carry the principal obligation to ensure that a system is in place to control risk.

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The legislation requires that the management system monitor levels of risk and adverse consequences of retained residual risk⁹.

The inevitable incidents that will occur are an indication that the level of residual risk may not be acceptable. Some of the defences may be less than ideal or become inappropriate as the task changes over time. An effective safety and health management system must be adjusting, modifying and creating new defences as analysis of accidents and incidents reveals that existing defences are inadequate.

There are a number of causal analysis tools available to determine both immediate and underlying causes of events occurring on site and identify any problems which need to be addressed. An effective safety and health management system will contain a subsystem to obtain this information and act on it. The operators review should assess whether this has been done and if so is it being done in an effective manner.

It is expected an appropriate subsystem would deliver:

1. Factual reporting of all accidents and incidents at the mine
2. Causal analysis of the events (accidents and incidents) identifying immediate and underlying causes including absent, failed or ineffective defences
3. A system for reviewing underlying causes to detect any repetitious events or general failure types
4. A process of ensuring the information derived from the subsystem is acted on to create, modify, or adjust defences.

10 Audit and inspection findings

Any review on behalf of the operator must examine previous audit, inspection and review findings to make sure that problem areas in the safety and health management system previously identified have been addressed.

Audits would include compliance audits against legislation and corporate standards; inspections would include inspections by the legislator as well as the results of internal inspections.

⁹ *Coal Mining Safety and Health Act 1999*: section 30 “How is an acceptable level of risk achieved,” subparagraph (2) (c); *Mining and Quarrying Safety and Health Act 1999*: section 27 “Risk management,” subparagraph (2) (c).

11 Contractor safety performance

With the extensive use of contractors within the mining industry it is particularly important that any review of the effectiveness a mine's safety and health management system examines the effectiveness of the system maintaining contractor safety and health standards.

The adoption by site senior executives of the safety systems of large corporations working as contractors on site needs careful assessment. It is the site senior executive who has the obligation to develop and implement a safety and health management system for the mine¹⁰ controlling activities on site, including the activities of contractors.

The contractor's obligation is to ensure compliance with the Act and any applicable parts of the mine's safety and health management system¹¹.

When contractors bring safety and health procedures onto a mine site these procedures need to be mapped for consistency against any procedures existing at the mine before being adopted into the mine's safety and health management system. Particular attention needs to be given to the need for contractors to adhere to procedures developed on site in response to legislative requirements i.e. standard operating procedures and standard work instructions. This examination of the contractor's procedures should included measurement against any requirements in the legislation for the development of those procedures. This task should be completed before the contractor begins work on site and should be documented.

It is advisable to ensure that procedures across site are consistent, particularly when a number of contractors are working on the same site. Any review should detect and correct inconsistent safety procedures that may exist on site.

An operator's review should address the effectiveness of the subsystem for managing contractors. It would be expected that such a system would be extensive, commencing with principles for assessing suitable contractors, stating requirements for adoption of the mines safety and health management system.

¹⁰ *Coal Mining Safety and Health Act 1999*: section 42 "Obligations of site senior executive for coal mine," subparagraph (1) (c); *Mining and Quarrying Safety and Health Act 1999*: section 39 "Obligations of site senior executive for mine," subparagraph (1) (c).

¹¹ *Coal Mining Safety and Health Act 1999*: section 43 "Obligations of contractors"; *Mining and Quarrying Safety and Health Act 1999*: section 34 "Obligations of contractors".

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It is suggested that an operator's review of this subsystem would be assisted by the existence of a comprehensive report of the work undertaken to ensure that the mines' safety and health management system included the work of the contractor and the steps taken to ensure that this was fully understood by the contractor. It would be useful if the report also contained the process by which the ongoing adherence of the contractor with the mine's system was to be monitored. The more extensive the work undertaken at the mine by a contractor the more such a document would assist the operator's reviewing the effectiveness of control over contractor's activities.

12 Chronic exposures causing incapacity

Each year a number of persons leave the industry because of incapacity to carry on working in the industry. For a number of these people service in the industry has either been the cause of their medical condition or a major contributing factor towards it.

An effective safety and health management system should have provision to identify mine workers who fall into this category and to examine each of these cases to identify whether they are attributable to any chronic (long term) exposure to low level hazard.

This is an important issue as causes of the incapacity may be due to exposure to a chronic substandard condition rather than a single incident eg whole of body vibration over a period of time rather than a fall or other traumatic event.

As with all investigations, records of the results of the investigation and the causes of the injury or illness should be kept and reviewed so that safety and health management system can be modified as a result of lessons learnt to prevent future occurrences.

13 Definitions

Audit

“A systematic examination against defined criteria to determine whether activities and related results conform to planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve the organisation’s policies and objectives.”

Source AS/NZS 4801: 2001 “Occupational health and safety management systems – Specification with guidance for use”.

See Appendix B for alternative but complementary definition - AS/NZS/ISO19011: 2003 “Guidelines for quality and /or environmental management systems auditing”.

Review

In the context of this Guidance Note “review” means a critical re-examine of the system with the intention of determining whether the effectiveness of the safety and health management system- see below.

Effective

In the context of this Guidance Note effective means that a safety and health management system reduces the level of risk to safety and health of persons affected by the operations of a mine to within acceptable limits and as low as reasonably achievable. It is considered that achieving this goal would result in continuous improvement of safety and health standards and performance.

Residual Risk

Risk after controls have been implemented; reviews and causal analysis may reveal that residual risk is not at an acceptable level

Operator

Is the person or entity appointed as the operator by the holder of the mining tenure or when no other operator is appointed: *Coal Mining Safety and Health Act 1999*; section 21: “Meaning of coal mine operator”; *Mining and Quarrying Safety and Health Act 1999*; section 21: “Meaning of operator”.

Site Senior Executive

Is the person appointed by the operator as required by the *Coal Mining Safety and Health Act 1999* section 41: “Obligations of coal mine operator”, subparagraphs (1) (c) and the *Mining and Quarrying Safety and Health Act 1999* section 38: “Obligations of the operator”, subparagraph (1) (c).

14 References

- *Coal Mining Safety and Health Act 1999*
- *Coal Mining Safety and Health Regulation 2001*
- *Mining and Quarrying Safety and Health Act 1999*
- *Mining and Quarrying Safety and Health Regulation 2001*
- *AS/NZ 4801 Occupational health and safety management systems*
- *AS/NZS: 4804: Occupational health and safety management systems – General guidelines on principles, systems and supporting techniques.*
- *AS/NZS/ISO19011: 2003 Guidelines for quality and /or environmental management systems auditing*
- *AS/NZS 4360: 2004 Risk Management*
- *Guide to Positive Performance Measurement in the Western Australian Minerals and Resources Industry (The Chamber of Minerals and Energy Western Australia web site www.cmewa.com.au)*

Appendix A: Relevant Sections of Mining Safety and Health Legislation

Coal Mining Safety and Health Act 1999

62. Safety and health management system

(3) *The safety and health management system must be adequate and effective to achieve an acceptable level of risk by –*

- (a) defining the coal mine operator's safety and health management policy; and*
- (b) containing a plan to implement the coal mine operator's safety and health management policy; and*
- (c) stating how the coal mine operator intends to develop the capabilities and support mechanisms necessary to achieve the policy; and*
- (d) including principal hazard management plans and standard operating procedures; and*
- (e) containing away of –**
 - a. measuring monitoring and evaluating the performance of the safety and health management system; and**
 - b. taking the action necessary to prevent or correct matters that do not conform with the safety and health management system; and**
- (f) containing a plan to regularly review and continually improve the safety and health management system so that risk to persons at a coal mine is at an acceptable level; and*
- (g) if there is a significant change to the coal mining operations of the coal mine – containing a plan to immediately review the safety and health management system so the risk to persons is at an acceptable level.*

Mining and Quarrying Safety and Health Act 1999

55. Safety and health management system

(3) *The safety and health management system must be effective to achieve and acceptable level of risk by -*

- (a) defining the mine operator's safety and health management policy; and*
- (b) containing a plan to implement the mine operator's safety and health management policy; and*
- (c) stating how the operator intends to develop the capabilities and support mechanisms necessary to achieve the policy; and*
- (d) including procedures for the operations of the mine and standard work instructions*
- (e) containing away of –**
 - a. measuring monitoring and evaluating the performance of the safety and health management system; and**
 - b. taking the action necessary to prevent or correct matters that do not conform with the safety and health management system; and**

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- (f) containing a plan to regularly review and continually improve the safety and health management system so that risk to persons at a mine is at an acceptable level; and*
- (g) if there is a significant change to the mining operations of the mine – containing a plan to review the safety and health management system so the risk to persons is at an acceptable level.*

Coal Mining Safety and Health Act 1999

42 Obligations of site senior executive for coal mine

A site senior executive for a coal mine has the following obligations in relation to the safety and health of persons who may be affected by coal mining operations–

- ...*
- (c) to develop and implement a safety and health management system for the mine;*

Mining and Quarrying Safety and Health Act 1999

39 Obligations of site senior executive for mine

(1) A site senior executive for a mine has the following obligations in relation to the safety and health of persons who may be affected by operations–

- ...*
- (c) to develop and implement a safety and health management system for the mine;*

Coal Mining Safety and Health Act 1999

41 Obligations of coal mine operators

(1) A coal mine operator for a coal mine has the following obligations –

- ...*
- (f) to audit and review the effectiveness and implementation of the safety and health management system to ensure the risk to persons from coal mining operations is at an acceptable level*

Mining and Quarrying Safety and Health Act 1999

38 Obligations of mine operator

. (1) A mine operator for a mine has the following obligations –

- ...*
- (e) to audit and review the effectiveness and implementation of the safety and health management system to ensure the risk to persons from operations is at an acceptable level*

Appendix B: Notes on Audits

The latest Australian definition of an audit, given in AS/NZS/ISO19011: 2003 Guidelines for quality and/or environmental management systems auditing, states: **“Systematic, independent and documented processes for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled.”**

where:

- **“audit evidence”** means “records, statements of fact or other information, which are relevant to the audit criteria and verifiable, and
- **“audit criteria”** means “sets of policies, procedures or requirements.”

Another less recent but similar definition of an audit is given in AS/NZS 4801: 2001 Occupational health and safety management systems – Specification with guidance for use, and is as follows:

“A systematic examination against defined criteria to determine whether activities and related results conform to planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve the organization's policy and objectives.”

Whatever definition of an audit a mine decides to adopt, the following guidance is given so that an audit represents the current state of affairs and is a useful tool for confirmation of best practice and action for improvement.

The audit criteria, (defined criteria in AS/NZS 4801), should always include the legislative compliance requirements of a safety and health management system as described in the *Coal Mining Safety and Health Act 1999* and the *Mining and Quarrying Safety and Health Act 1999*.

In addition, there are four key aspects to an audit on a safety and health management system and all aspects should be included:

1. Determine how the safety and health management system is intended to ensure the risks to persons from operations at the mine are at an acceptable level
2. Establish whether the safety and health management system is implemented and effective in ensuring the risks to persons from operations at the mine are at an acceptable level.
3. Examine whether the safety and health management system is suitable for ensuring the risks to persons from operations at the mine are at an acceptable level.
4. Use of an evidence-based approach where audit evidence is verifiable. The audit should be based on samples of the information available.

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Persons competent in auditing protocols and familiar with the relevant AS/ANZ and ISO standards should carry out the audit. An audit report and conclusion on the safety and health management system should include evidence of how well the planned arrangements have been implemented, how **effective** they are and how suitable they are.

The results of the audit will contain information on where risks are being well managed and identify opportunities for improvement. The auditing process should include a method for identifying and making improvements; ideally with linkage back to the mine's safety and health management system.
