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H&S NEWS
AUGUST 2008

THE AUSIMM SUBMISSION TO THE NATIONAL OHS REVIEW

The AusIMM has made a submission to the National OHS Review. The submission was prepared under the auspices of Health and Safety Committee.

Key issues raised in the submission include:

- Support for nationally consistent regulation of safety and health, to be advanced through the National Mines Safety Framework
- Support for a single national Act proposed by the Government, qualified by the need for mine specific regulations and Codes of practice
- The need to ensure that important learnings embodied in regulations and Codes of practice are retained in the most appropriate form
- Support for a duty of care that is expressed in terms of eliminating risk or reducing it to as low as reasonably practicable, cf. an absolute duty to avoid harm
- A recommendation that regulators be adequately resourced
- A recommendation that prosecution be related to culpability, and directed towards the most appropriate person cf. being applied in a reactive way

The full submission can be viewed at: http://www.ausimm.com.au/content/docs/ohs_review2008.pdf

The National Mines Safety Framework Review is occurring concurrently with the Federal Review, and it is hoped that the recommendations from the two reviews will be complementary.

Survey on Compliance, Competency and Enforcement for AusIMM Submission to National Mines Safety Framework

Safety and health in the mining industry is the number one priority of our members.

The National Mines Safety Framework Steering Group aims to deliver greater consistency in mine safety and health regulations across Australia. The Steering Group has recently released a consultation document on the final four strategies of the framework: competency, enforcement policy, research and compliance support.

In order to ensure that the perspectives of professionals in the minerals sector are fully taken into account, The AusIMM is developing a submission to this document. A short survey has been developed to gather members' views on the following issues:

- Competencies of regulators
- Competencies of workers
- Enforcement Policy
- Compliance Support

The survey is available at:

http://www.surveymonkey.com/s.aspx?sm=GZergdKxBwjfHpU_2bqzOgeQ_3d_3d

All responses will be anonymous and no specific company or individual will be referred to in the submission. We encourage all members to consider providing feedback through this survey as mine safety and health, and the regulations and support implemented in order to achieve the goal of zero harm, is an issue that significantly affects our membership. Should you have any further queries please contact Monika Sarder – Manager of Policy and Advocacy, at msarder@ausimm.com.au or on 03 9658 6159. **Please lodge comments by 15/08/08.**

To view the full consultation documents go to:

http://www.ret.gov.au/resources/mining/national_mine_safety_framework/Pages/current_strategies.aspx

FEATURE ARTICLE:**HEALTH AND SAFETY CHALLENGES FOR ENGINEERS RELATED TO THE INTRODUCTION OF AMENDMENTS TO THE PROFESSIONAL ENGINEERS ACT IN QUEENSLAND**

By Bruce Ham, Consulting Mining Engineer, H&S Committee member, MAusIMM(CP)

Abstract

With the implementation of recent amendments to the Queensland Professional Engineers Act (2008), senior engineers in the mining industry are required to demonstrate that they have 'maintained competency in the practice of engineering in the area of engineering for which the (engineer) is ... registered.' This is to be achieved through Assessment Entity that has been approved by the Minister on advice from the Board of Professional Engineers Queensland. The scope of the legislation covers engineering enterprises in Queensland and engineering activities elsewhere that may have been designed in Queensland. There is currently a degree of urgency in determining what are the necessary health and safety competencies for the mining industry, how will they be assessed and who will assess the maintenance of these competencies.

Introduction

On commencement of the recent amendments to the Queensland Professional Engineers Act (2002) and regulations there is a process that will provide for a co-regulation role in professional organisations such as Engineers Australia and the Australasian Institute of Mining and Metallurgy. This role will require a system that documents that engineers are capable of designing, constructing and operating plant and facilities in such a way that the risk to workers and the public is constrained to acceptable levels. While this is a noble cause, the implementation will be at best complex. The most complex case will probably be for the mining engineers and Colliery Managers in the already highly regulated and complex underground coal mining sector.

While a less prescriptive form of the Professional Engineers Act has applied to Queensland mining engineers for many years, the standard of professional capability of mining engineers in the underground coal sector has largely been dictated by the need for compliance with the various provisions in the Coal Mining Safety and Health Act and Regulations. Before considering the detail of how co-regulation under the Professional Engineers Act might apply, there is a need to comprehend the basics of how such a process might interact with the Coal Mining Safety and Health Act and Regulations.

The different applications of competent and competencies

The word 'competent' and its derivatives appear in numerous Acts, regulations and guidelines. In comparing and contrasting these, a picture emerges as to how competence and its assessment might apply to mining engineers in the context of the Professional Engineers Act.

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FEATURE ARTICLE: CONTINUED

Under the Queensland Coal Mining Safety and Health Act and Regulations, there are provisions to establish the Board of Examiners who issue certificates for a number of statutory mining positions. Mandatory competencies for these certificate holders are specified by the Ministerial Coal Mining Health and Safety Advisory Council from a group of competencies defined within the Black Coal Training Package (NTIS 2008). Within this framework there is provision for recognition of current competencies (RCC) which is defined as the acknowledgment of competencies currently held by a person, acquired through training, work or life experience - more commonly known as recognition of prior learning (RPL). These competencies cover the following issues in the current package: **MNC.04** G1003A Establish the risk management system:



U1102A Establish the spontaneous combustion management plan

U1106A Establish the ventilation management plan

U1111A Establish the gas management system

U1131A Establish the mining method and strata management systems

U1136A Establish mine transport systems and production equipment

U1141A Establish the mine services and infrastructure systems

U1151A Establish mine emergency preparedness and response systems

The following competencies are required for the supervisory role of 'Open cut Examiner' in surface coal operations:

MNCG1002A Implement and apply the risk management processes

MNCG1007A Implement and monitor health and hygiene management systems

MNCG1008A Conduct safety and health investigations

MNCO1115A Apply and monitor surface mine emergency preparedness and response procedures

MNCO1041A Support shotfiring operations

MNCO1042A Examine and maintain mine safety

MNCO1043A Monitor the interaction of heavy and light vehicles and mining equipment

MNCO1046A Apply and monitor systems and methods of mining

Within the framework of Engineers Australia, the purpose of Continuing Professional Development (CPD) activities are 'to extend or update a practitioner's knowledge, skill or judgment in their area or areas of practice and enable them to maintain technical competence. To achieve this, a practitioner's CPD records must document a minimum of 150 hours of structured CPD over a three year period for all practitioners. Of the 150 hours:

- at least 50 hours must relate to the practitioner's area(s) of practice;
- at least 10 hours must cover risk management;
- at least 15 hours must address business and management skills; and
- the remainder must cover a range of activities relevant to the practitioner's career.

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FEATURE ARTICLE: CONTINUED

In the Professional Engineers Act, there is attached to the registration of a 'registered professional engineer' a requirement for on-going training:

Section 16 Meaning of continuing competency requirements

(1) Continuing competency requirements are requirements, provided for under a regulation, that if satisfied demonstrate that an applicant for renewal or restoration of registration has maintained competency in the practice of engineering in the area of engineering for which the applicant is, or was, registered.

(2) The requirements may include requirements about the following for each area of engineering:

- (a) the nature, extent and period of practice of engineering by the applicant;
- (b) the nature and extent of any continuing professional development undertaken by the applicant;
- (c) the nature and extent of any research, study or teaching, relating to engineering, undertaken by the applicant;
- (d) the nature and extent of any administrative work, relating to engineering, performed by the applicant.

General industry standards for Workplace Health and Safety Officers (WHSO) in Queensland dictate the WHSOs have the necessary skills to assess workplaces for a number of health and safety criteria. In accordance with the *Workplace Health and Safety Act* the workplace health and safety criteria approved by the Chief Executive of Workplace Health and Safety Queensland are:

1. Hazard identification, risk assessment and control

That the organization ensures that hazards are identified, risks assessed, control measures implemented then monitored and reviewed for effectiveness.

2. **Work environment** That a safe and healthy work environment is provided and

maintained.

3. **Noise** That exposure to "excessive noise" is prevented.

4. **Plant** That safe plant is provided and maintained.

5. **Electrical** That the electrical risks are controlled.

6. **Hazardous substances** That risks arising from the use, handling and storage of substances are controlled.

7. Manual tasks

That controls are in place to prevent or minimise musculoskeletal disorders caused by manual tasks.

8. Information, instruction, training and supervision

That information, instruction, training and supervision are provided to ensure health and safety.



Guidance on Principles for Safe Design at Work, (Australian Safety and Compensation Commission, 2006) encourages practitioners to identify hazards and either eliminate or reduce risk through a risk assessment approach at the design stage. The guidance note has an engineering orientation in that it applies to persons involved with the design or modification of products, buildings, structures and processes used for work. A set of skills is implied as the content of guidance note includes:

- 1 Persons with Control
- 2 Product Lifecycle
- 3 Systematic Risk Management
- 4 Knowledge and Capability for Safe Design
- 5 Information Transfer and Feedback

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FEATURE ARTICLE: CONTINUED

Risk Management and legislation

By an examination of the relevant legislation, it can be clearly demonstrated that corporate executives need to pursue a risk management framework. The Coal Mining Safety and Health Act requires in:

Section 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:

- (a) to ensure the risk to persons from coal mining operations is at an acceptable level;
- (c) to develop and implement a safety and health management system for the mine;
- (e) to train coal mine workers so that they are competent to perform their duties; and

44 Obligations of designers, manufacturers, importers and suppliers of plant etc. for use at coal mines

- (1) A designer or importer of plant for use at a coal mine has an obligation to ensure the plant is designed so that, when used properly, the risk to persons from the use of the plant is at an acceptable level.

Also on the topic of health and safety management systems the Queensland Coal Mining Safety and Health Regulation 2001, which requires mines to implement a 'safety and health management system for personal fatigue, and other physical and psychological impairment and drugs' in section 42.

The regulation also establishes the Coal Mine Workers Health Scheme in sections 44 to 53. This scheme provides for medical practitioners called Nominated Medical Advisers to promote safe operations by assessing workers' fitness to undertake duties without risk to themselves or others. The Scheme also monitors changes in the health of mine workers over time. The key section that relates to hazardous exposures is section 49 which requires,

"A coal mine's safety and health management system must provide for periodic monitoring of the level of risk from hazards at the mine that are likely to create an unacceptable level of risk."

By contrast, the latest revision to the Workplace Health and Safety Act makes reference to elements of a management system, but focuses on risk assessment and the application of controls through a hierarchy of controls in:

Section 27A (2)-

To properly manage exposure to risks, a person should consider the appropriateness of control measures in the following order:

- (a) eliminating the hazard or preventing the risk;
- (b) if eliminating the hazard or preventing the risk is not possible, minimising the risk by measures that must be considered in the following order:
 - (i) substituting the hazard giving rise to the risk with a hazard giving rise to a lesser risk;
 - (ii) isolating the hazard giving rise to the risk from anyone who may be at risk;
 - (iii) minimising the risk by (other) engineering means;
 - (iv) applying administrative measures;
 - (v) using personal protective equipment.

Article continues, PTO

FEATURE ARTICLE: CONTINUED

Discussion of Competence as a professional mining engineer

The wide range of concepts relating to professional and engineering competency provides a useful starting point for distilling a firm platform for mining related competencies in the context of the Professional Engineers Act.

The first component is dictated by mining technology and environment and draws in the statutory underground (coal) mining industry competencies. It also establishes a risk based framework.

The limitation of these competencies is that they focus in mining technology rather than that actual profile of adverse mining health and safety impacts. This area is picked up in the open cut health and hygiene management systems and in the workplace health and safety elements of hazardous substances, manual tasks, information, instruction, training and supervision.

Further support for risk control and management is provided in design by ASCC 'Guidance [Note] on Principles for Safe Design at Work' and in health outcome management by CSMH Act section 49 on the periodic monitoring of the level of risk from hazards

Assessment

While the key elements are identified, the processes of assessing them needs to be more flexible and comprehensive than the technical training basis in which the competencies have been derived.

The verification of high level health and safety and risk management competencies needs to be considered as a complex educational issue. There are both skill and knowledge components that have to be considered, but more important is the need to evaluate competence in context in the workplace.

From an educational perspective, this is best addressed by a form of problem based

learning and assessment that is based around the compilation of an assessable portfolio of activities. This approach removes a burden from time-poor line managers who might otherwise have to attend formal classes. Assessment is achieved by recognizing documents on day to day activity as a valid tool for learning and assessment.

The challenge that arises is one of assessment and particularly the evaluation of skill, reliability and consistency of assessors. Measures and processes need to be developed ensure high level operational health and safety and risk management competencies can be reliably maintained, documented and assessed.

Conclusions

Through a series of mine disasters, the mining industry has demonstrated a need for programs of maintenance of competency of persons who have engineering control over production operations. The implementation of the recent amendments to the Professional Engineers Act will mitigate against further procrastination.

Change can be achieved by putting current good health and safety management systems and associated engineering practice into a problem based learning context that facilitates a rigorous assessment process. Such a process is needed to provide verification that mine managers in technical control have maintained their key competency levels and can objectively demonstrate to management and coroners that their obligations to maintain competency have been met.

To view the article References & Legislation notes used click here:

http://www.ausimm.com.au/content/wir/bruce_ham_references.pdf

Great events!

DATES FOR YOUR CALENDAR

AusIMM Narrow Vein Mining Conference, VIC – 14-15 October 2008
(<http://www.ausimm.com.au/narrowveinmining2008/>)

Strategic Risk Management and Applied Optimization in Mine Design, Perth – 11-14 November 2008
(<http://www.ausimm.com.au/content/wsc.aspx?ID=39>)

Future Mining, Sydney – 19-21 November 2008 (University of New South Wales)
(<http://www.futuremining.org/>)

PACRIM Congress, Gold Coast – 24-27 November 2008
(<http://www.ausimm.com.au/pacrim2008/>)

For the full list of AusIMM Events and to view the Industry Calendar of Events, go to

<http://www.ausimm.com.au/sections/MEvents.aspx> (AusIMM Events)
and
<http://www.ausimm.com.au/content/default.aspx?ID=242> (Industry Calendar)

Event Snapshot: NSW DPI 18th Mechanical Engineering Safety Seminar (MESS)

History repeats: the management of knowledge
13–14 August 2008
Sydney Olympic Park, Homebush

The 18th Mechanical Engineering Safety Seminar will be held at the Waterview Convention Centre, Sydney Olympic Park, on Wednesday 13 and Thursday 14 August 2008. The Waterview Convention Centre is situated within the picturesque Bicentennial Park area of Sydney Olympic Park, overlooking Lake Belvedere. A conference dinner will be held on Wednesday evening in the Freshwater Ballroom at the Novotel, Sydney Olympic Park.



Image courtesy NSW DPI

The special speaker at the Dinner is Bill Harrigan. Bill Harrigan is widely regarded as one of the finest referees in the history of rugby league. He has officiated in six NRL grand finals, 12 State of Origin matches and 15 International Tests. He has recently assumed a role on the popular television program *Gladiators*. Bill will entertain delegates at the conference dinner on Wednesday night with insights to league and his life.

The Seminar covers key topics in safety such as: drift conveyor incident learning outcomes, OHS regulation for mines, report on staple testing, safety and economics of modern drilling rigs, plus more.

Full details, including the registration brochure, can be found at
<http://www.dpi.nsw.gov.au/minerals/safety/resources/seminars-and-conferences/mechanical-engineering-safety-seminar>

(more) Great events

ACMER upcoming safety courses

Masterclass in Safety Leadership for Industry Leaders
29 September – 1 October 2008
Brisbane, Queensland

This Masterclass focuses on leadership and is based on the fundamentals of 'transformational leadership,' with a unique methodology to transfer these skills to managers. The Masterclass will benefit Senior Managers and Executives who manage personnel in the minerals and other extractive industries and the infrastructure development industry. It will also be of value to senior government personnel who are focussed on safety issues in those industries.

More info:

<http://www.acmer.uq.edu.au/training/attachments/MISHCSafetyLeadership.pdf>

Short Course in Human Error and Risk Behaviour
2 – 3 October 2008
Brisbane, Queensland

This course in Human Error and Risk Behaviour is focussed on the 'psychology of risky behaviours.' This Short Course on will be of value to Health and Safety Managers, HR Professionals, Emergency Services Professionals, Group Training and Safety Industry Professionals, and Government personnel with responsibility for assisting industries to improve their safety performance.

More info:

<http://www.acmer.uq.edu.au/training/attachments/HumanError&RiskBehaviourMISHCBrisbane.pdf>



Images courtesy ACMER



Newsflash

Media Release: Department of Mines and Energy: Safety-first approach to mining in State Budget

The safety and health of men and women who work in Queensland's mines will be strengthened through a new industry safety and health levy. Mines and Energy Minister Geoff Wilson said the levy would boost the safety and health services provided by the state's mine safety watchdog - the Mines Inspectorate.

Find out more at

http://www.dme.qld.gov.au/media_centre.cfm?item=540.0



Australian Mining: Simulator to improve underground safety

Queensland researchers are working on a special simulator to help coal miners better adjust to the breathing apparatus they wear in the event of an underground explosion...the Australian Coal Association Research Program (ACARP) is funding the research project.

See http://www.miningaustralia.com.au/articles/Simulator-to-improve-underground-safety_z175095.htm

NSW DPI: Mine Safety Alerts; Safety Bulletins

Safety Alerts are an important communication tool between NSW DPI and the NSW mining industry, suppliers, unions and industry organisations. NSW DPI issues a Safety Alert following the occurrence of an event such as a fatal accident, dangerous occurrence and an incident which is considered to be of significance to the industry, with the aim of preventing a similar occurrence.

To keep up to date, visit:

<http://www.dpi.nsw.gov.au/minerals/safety/safety-alerts>

Safety Bulletins contain information relating to mine safety issues. They are similar to Safety Alerts but are not directly linked to a specific incident.

Safety Bulletins commenced in 2006. The latest Safety Bulletins can be found at:

<http://www.dpi.nsw.gov.au/minerals/safety/safety-bulletins>



*Barriers are possible effective controls when working near quarry benches.
Image: NSW DPI*

THE AUSIMM BULLETIN: UPDATE

Bulletin July/August Edition Out Now!

The July/August edition is out now and contains the following articles:

- Cover Story: AusIMM Awards recognise excellence
- Exploration and mining in South Australia:
Speech by Hon Paul Holloway MLC to The AusIMM Annual Awards Dinner

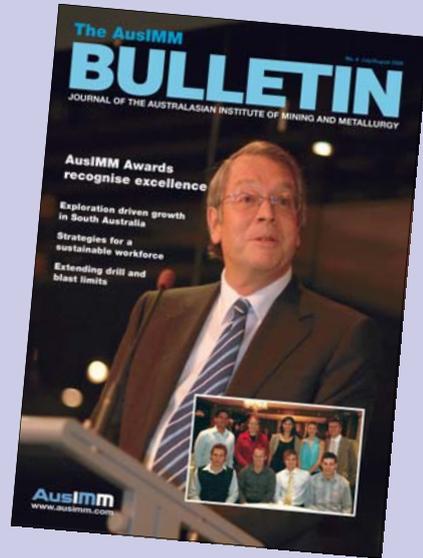
Features include:

- Workforce Planning & Development
- Conveyors & Components
- Drilling & Blasting

September/October Edition

The upcoming features in the September/October edition of the Bulletin are:

- Regional Feature: NSW
- Emissions Trading: What will it mean for the Industry?
- **Mining Health and Safety**
- Water in Mining



To be considered for publication in future editions of the Bulletin, please send an outline of your article idea of no more than 250 words to the Editor, Monika Sarder, via msarder@ausimm.com.au.

More information about The AusIMM Bulletin can be found at <http://www.ausimm.com.au/content/default.aspx?ID=99>



Phil MacIntyre, right, is presented with the Award by AusIMM President Peter McCarthy

THE AUSIMM AWARDS

As reported in issue 1 of the *H&S News*, Phil MacIntyre and leadership team - Kingsgate Consolidated Limited's, Akara Mining Limited, Chatree Gold Mine - were the recipients of the 2007 Jim Torlach Health and Safety Award. The Award was recently presented to Phil MacIntyre at the 2008 Awards Dinner. Congratulations are extended to Phil MacIntyre and team on receiving the Award.

Nominate today for the 2008 AusIMM Awards

Consider nominating for The AusIMM Awards today — there are many deserving recipients who are a part of The AusIMM; it is up to you to ensure they are recognised!

All the information you need, including guidelines and the Online Awards Nomination Form is at <http://www.ausimm.com.au/content/default.aspx?ID=122>

CONTACT US

If you have any feedback, would like to make a suggestion or contribute to the H&S Newsletter, please e-mail the Secretariat Stephanie Omizzolo at somizzolo@ausimm.com.au or contact one of the H&S Committee members:

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Or you can find out more about the H&S Committee by visiting our webpage! :
<http://www.ausimm.com.au/Content/default.aspx?ID=205>

We hope you enjoyed this edition of the "Health and Safety Newsletter." Stay tuned...next newsletter due for release November