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Message From the CEO



Pat Gilroy

The Department of Minerals and Energy WA's Safety Performance 1999/2000 does not appear to have attracted much attention from industry. Perhaps it should have.

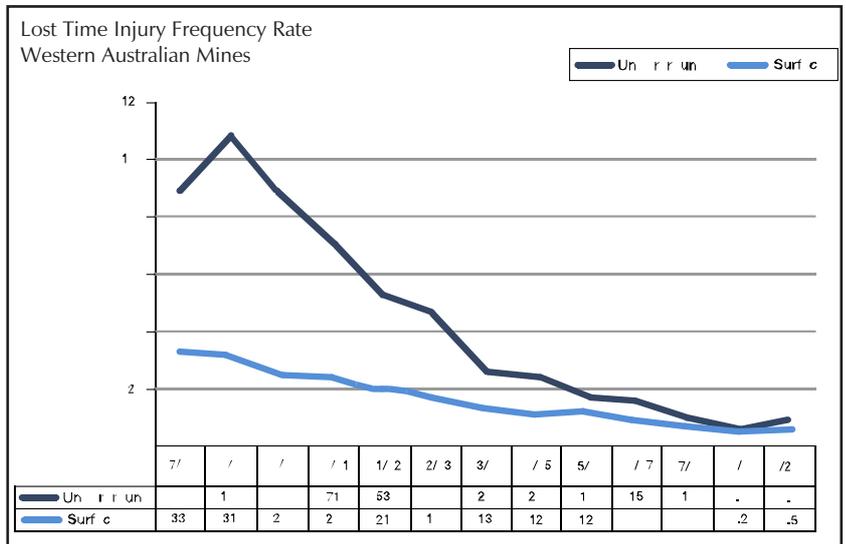
The report points out, among other things, that the overall industry injury frequency rate increased from 6.6 to 6.9 (about 4.5%) on the 1998/99 figure, the overall duration rate decreased by about 20% and the injury index (frequency x duration) improved by 17%.

The seemingly small increase in frequency rate, however, becomes of considerable importance when we realise that it is the first upward trend for the surface sector since AXTAT figures were published for 1987/88 and for the underground sector since 1988/89.

Of greater importance was that the increase in the underground sector injury frequency rate was actually 30% and this should trigger warning lights for both the industry and regulators.

A close examination of the respective commodity sectors provides a valuable insight into comparative performance and identifies those sectors whose performance warrants attention both in relation to frequency and injury index, which is a useful measure of severity.

Although approximately 80% of the mining workforce work at or below the industry mean it is self evident that some industry sectors have work to do if they are to reach the standards being achieved by the industry leaders.



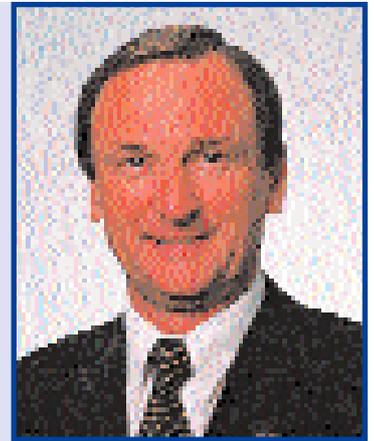
Sector	Injury Frequency Rate	Injury Index
Bauxite/Alumina	2.4	31
Nickel	4.7	55
Gold	6.8	107
Iron Ore	7.0	60
Salt	8.6	72
Construction Materials	10.1	30
Base Metals	10.6	162
Mineral Sands	12.8	141
Diamonds	12.9	168
Coal	15.9	56
Industry Mean	6.9	85

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MARCSTA is a not for profit association.
All proceeds are reinvested into the industry for future development of safety and training.
The Monitor circulates widely throughout the mining industry and contractors to mining companies in Australia

Clive Brown takes over as Minister responsible for Mining



The appointment of Clive Brown to the State Development portfolio, which includes responsibility for the minerals sector, will be viewed very positively by those who work in the discipline of occupational health and safety.

Clive was a member of the WorkSafe Commission during the period 1987 through 1994 and has always had a strong commitment to improving the quality of

health and safety in Western Australian workplaces.

The mining industry has been a sector of particular interest to him in this regard and employers can expect him to pursue continuous improvement with the same vigour as his predecessor.

MARCSTA wishes him every success.

Review of the Mines Safety and Inspection Act 1994 and Occupational Safety and Health Act 1984

The retirement of Commissioner Gavin Fielding has prompted an extension of the date for submissions to 30 June 2001. His replacement, Robert Laing, is no stranger to the subject as he previously conducted the initial review of the Occupational Safety and Health Act in 1992.

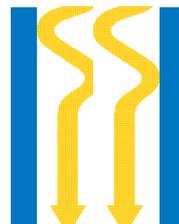
In the current climate of bureaucratic reorganisation the industry would do well to ensure its voice is heard particularly in relation to the retention of an independent inspectorate and the role and composition of the Mines Occupational Safety and Health Advisory Board.

MARCSTA has commented to the Review on the following aspects of the mining safety legislation:

- Part 4, Section 33: in relation to the qualifications of Registered Managers.
- Part 4, Section 38: in relation to the provision of a surface supervisor position.
- Part 4, Section 48: in relation to the maintenance of currency of certificates of competency.
- Part 5: in relation to the composition of MOSHAB and the inclusion of independent expertise.

MARCSTA has requested the opportunity to discuss its input with the Commission.

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MARCSTA Review of Underground Course

In keeping with MARCSTA's desire to ensure the continuing quality of its training, a review panel met in late April to make any necessary changes to the MARCSTA underground induction course. The review group included MARCSTA CEO Pat Gilroy, State Mining Engineer Jim Torlach, Peter Tynan, Nick McIntyre and Dale Cocker (by conference phone from Tasmania). Updates and improvements were made in a number of places in the manual.

One key issue of lack of standardisation the course has to deal with is location identification lighting underground.

Consideration is to be given to the implementation of a fast track refresher option which will recognise current competency and enable those who have the necessary knowledge to be re-certified through an

examination process which will be accessed via the internet.

This option will be available following the review of the metalliferous industry training package.



The team hard at work on revisions to the Underground Manual. From left: Nick McIntyre, Pat Gilroy, Peter Tynan, Jim Torlach and on conference phone Dale Cocker.

Cancellation of TRAM Conference

The decision to cancel the Training Resources Applied to Mining Conference (TRAM), which was scheduled to be conducted in Fremantle in late May, due to a lack of registrations from the industry, was a considerable disappointment to the organisers.

Much of the material scheduled for presentation addressed the range of issues confronting the industry today. With significant changes to the training agenda occurring with limited industry input, the conference would have provided an opportunity for a coordinated approach to future policy and direction.

Every inquiry into safety in the mining industry over the last decade or so has emphasised the need for additional training at all levels of the workforce to maintain a safe and healthy workplace. The response has been spasmodic and uneven.

Hopefully the cancellation of the conference will not be interpreted as a decline in the training agenda, and in particular where occupational health and safety is involved.

New Publications

Register of Australian Mining 2001-2. Perth, RIU. 08 9382 3955

Guideline on Occurrence, Accident and Occupational Disease Reporting, DME WA

Shaw Report: Review of the Effectiveness of Implementation of the Mines Fatality Inquiries, DME WA

Environmental Notes on Mining, DME WA

- Care and Maintenance
- Firebreaks
- Waste Rock Dumps



CSR Readymix ▼▼▼▼▼▼▼▼▼▼

CSR Readymix is part of CSR Ltd, one of the largest construction, building materials and sugar companies in the world. CSR Readymix is predominantly in the business of quarrying and concrete manufacture. In WA alone there are in excess of 30 sites with quarrying and concrete operations in most regional centres. The largest of these sites is the Gosnells quarry which has provided basic raw materials to the Perth market since the 1930's. The quarry operations provide the array of basic raw materials for construction including aggregate, road base and specially designed products for both domestic and commercial construction. CSR Readymix also supply product to both minor and major resource development projects in WA. There are approximately 150 employees in WA supported by a network of 200 contractors including the concrete truck owner drivers.

The Safety Health and Environment activities of CSR Readymix are focused on the following key areas and the relationship between them:

- plant
- systems
- people

Initial focus was on ensuring that both fixed and mobile plant was safe and met minimum legal requirements (eg for guarding). Secondly as in many organisations the Safety Health and Environment Management System that CSR Readymix is currently implementing has various components such as corporate standards, operational procedures (eg fixed plant isolation), and training. It also includes compliance kits for high risk activities (eg mobile plant) and both a self auditing and external auditing process. This current phase has produced for example a benchmark within the construction materials industry for the management of silica dust hazards. While the focus on systems has provided valuable structure and results it was also recognised that without leadership, encouragement and development of all persons, further improvement could not be achieved. To this end CSR Readymix is implementing a Safety Awareness program based on the measurement of individual beliefs and attitudes (managers included). This covers factors such as perceived control, risk taking, professionalism and stress tolerance, and an interactive process at site level to identify, challenge and change unwritten ground rules the site may have (eg "short cuts are an acceptable part of the industry").

After overcoming some initial internal resistance, CSR Readymix was one of the first organisations to utilise the MARCSTA Induction in 1996 for both employees and contractors in the quarrying sector of the business. The MARCSTA Induction ensured that employees received a thorough competency based induction training. The support for this induction is particularly high in the metropolitan quarry operations as it enables a quarry manager to ensure a person is inducted in the generic competencies of the industry and then allows him to induct a contractor or new employee on site specific issues. The MARCSTA Induction has become an important and integral component of the CSR Readymix strategy to ensure people are not hurt or harmed at work.



Pit Operations – Gosnells Quarry

“one of the first organisations to utilise the MARCSTA induction”

Managing a Shiftwork Lifestyle Program

Interest in the recently introduced self-management program has now extended beyond the State with a growing recognition of the need for shiftworkers to understand and manage the consequences of irregular work schedules and extended 12 hour rosters.

The program is essentially a comprehensive occupational health and safety approach to managing the lifestyle experienced by shiftworkers and links all key elements necessary to live well and safely. It is ideally suited for inclusion of wives or partners and addresses the social and family concerns, which occupies much of the media coverage of the shiftwork lifestyle.

Importantly, the program goes a long way toward meeting the duty of care requirements of both employers and employees.

Much of today's attention is directed to "fatigue management" programs when the focus needs to be on preventing fatigue with better education and understanding by employees who work with the risks which can arise from fatigue.

Duty of care extends to the provision of this fundamental knowledge.

It is no coincidence that many of our road fatalities occur at predictable times of the day. Education about the causative factors and ways to avoid the risks involved would do much to reduce the incidence.

MARCSTA now has a competent group of providers able to deliver the program both on and off site.

Enquiries to Paula Sinclair at MARCSTA.

From the Desk of the State Mining Engineer...

Risk Management in Western Australian Mines – A Fundamental Legislated Obligation

Many persons working in the industry in management and senior supervisory positions have taken the opportunity to attend a series of one day workshops which were conducted by the Mines Occupational Safety and Health Advisory Board (MOSHAB) across Western Australia. In total, more than 400 have participated in the program.

The workshops were conducted by members of a Risk Management Working Party established by MOSHAB led by Simon Thompson - Director of the Mining Operations Division with the Department of Minerals and Energy.

It is intended that the feedback from this widely representative group will be incorporated into a guideline document to facilitate risk management programs in the industry. This guideline will not duplicate the well established and recognised publications already available, but provide resource material to assist in carrying out the activities required in the risk management process, including guidance on barriers to performance, and success factors.

In the introduction to the workshop program, which included an outline of MOSHAB's role, functions and future plans, risk management in the context of the legislation (Mines Safety and Inspection Act 1994 and Regulations 1995) was emphasised.

It was pointed out that although the risk management obligation is not stated in explicit terms, it is clearly referenced in the Objectives of the Act.

Moreover, the duty of care obligations for the employer under Section 9 require among other things, that workplaces and systems of work are such that employees are not exposed to hazards.

This requirement is qualified by the proviso "so far as is reasonably practicable". This provision is defined in the Act in terms which embody the fundamentals of the risk management process,

"... a great deal of variability in comprehension of the risk management process"

- to identify hazards
- assess risks (in terms of probability and consequences)
- to eliminate or control those risks

The risk management obligation is explicitly stated throughout the Regulations.

In the course of the workshops, it became apparent that there is a great deal of variability in the comprehension of the risk management process, and in the scope and effectiveness of its application.

It was recognised that some corporations are well advanced in the process, and probably all operations are active in risk management at the basic level; (carrying out job safety analysis and developing safe working procedures at the tasks level).

However, there is a need to implement the process fully across the industry to drive continuous improvement in safety performance and to strive to eliminate fatal and serious disabling injuries.

The workshops emphasised the role of team based risk assessment.

At the close of each workshop three objectives were reiterated:

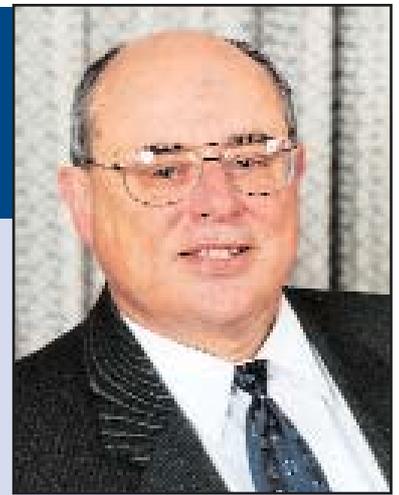
- To inform participants about MOSHAB priorities, activities and risk management principles.
- To provide a forum to identify and discuss barriers to, and success factors for effective risk management in the WA mining industry.
- To determine the scope of and input to the proposed MOSHAB Guideline on Risk Management for Managers.

The feedback from participants across the State was very positive.

The contracting sector in the WA mining industry now represents greater than 50% of the direct employment, and it was pleasing to note that many of the mining and resources contractors were strongly represented on the workshops across the State.

However there were some notable absences amongst both mining corporations and some of the contractor groups.

Jim Torlach



Jim Torlach

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Criteria & Recommendations for Registration

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MARCSTA Monitor Editor

Geoff Taylor

Editorial



In this issue I want to deal briefly with two very different aspects of safety.

In early May a front page photo in The West Australian showed the horrendous result of a tragic accident at 8 am involving a policeman returning home in the country after nightshift. The other vehicle was a road train. In an ironic twist, on the rear trailer are the words: "Time to swap drivers?" It is yet another reminder of the impact which shiftwork and fatigue can have and of the value of the new MARCSTA shiftwork course.

I have also recently read the tale of the Walton Colliery explosion in Yorkshire in 1959 by a writer who was then a young mines inspector with two years experience. It was a between shifts explosion. The five men who died could have been twenty otherwise.

In the irrespirable atmosphere near the coalface where spontaneous heating was occurring one rescuer's BA has already failed. The step favoured by the mine rescue superintendent was to restore airflow by hanging ventilation curtains to temporarily replace the doors damaged in the explosion. The young inspector, three miles from the pit bottom with no contact with the surface, and 16 hours already on the job, after first agreeing to it, stopped it at the last moment realising that if glowing material was still present from the first explosion, lifting the oxygen above 15% would lead to a second explosion. While we don't generally have gassy mines in WA, the story does illustrate the value of thorough training based on error scenarios, and the effect fatigue can have on decision making in emergencies.

I venture to suggest that the current national training approach to accreditation, where, if it's not in the package it's doomed, needs a rethink. There must be scope to accredit more specifically focussed safety training, such as for shiftwork and fatigue, and in depth emergency and rescue.

International Society of Mine Safety Professionals

As forecast in previous editions, approval has now been given by the International Society to proceed with the establishment of an Australian Chapter.

Incorporation of the Australian Chapter will proceed over the next three months with a constitution reflecting the aims and objectives of the parent organisation.

Following incorporation membership will be available in the categories of Professional, Associate and Student with the essential prerequisites being direct involvement and practical experience in mine safety related activities.

A major aim of the Society is to provide a validated examination process for certification of mine safety professionals whose status and skills have gone unrecognised for over one hundred years.

Expressions of interest in membership should be registered with Paula Sinclair at marcsta@bigpond.com or fax: (08) 9355 1499.

news and views...news and views...news

SAFETY THE ISSUE

The April/May 2001 AusIMM Bulletin carries three articles on safety in mining.

The immediate past president of AusIMM, Michael Lawrence writes on OHS and the AusIMM: *Developing a Realistic Approach for the New Millennium*. Carl Luttig from Zeal Consulting writes on *Leadership Culture and the Safe Workplace*, while Chris Towsey, GM of NOSA has an article on *Managing OHS Risk in Mining – Implementing Behavioural Change*.

Michael expresses some valid concerns about the AusIMM document Safety Beliefs and Principles developed with the Mineral Industry Consultants Association, particularly what he calls the unrealistic mantra: "All accidents are preventable". In a climate where criminalisation of the duty of care is leading to prison sentences in some states, he quotes Malcolm Brinded, UK Chairman of Shell at the 2000 Lloyd's Register Lecture. Malcolm is quoted as saying "zero risk is unachievable and risk management is about balancing the benefits and detriments of technological advance".

Michael stresses that he is not condoning poor OHS management systems and practices.

Carl Luttig shows nineteen statements which he believes are evidence of a mature safety culture in an organisation.

Examples are "we value our stories", "we expect change" and "we look past the obvious". He talks of a beliefs and effort approach to leadership, analysis and discipline, and shows how the personal characteristics of the leader can be transformed into the key components needed for managing change in the organisation.

Chris Towsey describes a risk-focussed safety program and risk management system covering:

- Risk assessment
- Risk register preparation
- Risk prioritisation
- Setting goals and action plans
- Setting key performance indicators
- Monitoring the results.

He sees the practical steps in changing behaviour as:

- Management commitment
- Communication
- Rewards
- Punishment
- Visibility
- Training
- Critical task analysis
- Hazard reporting
- Reminders, and
- Job safety observations.

Each of these is described in more detail in his article. He sees management inaction and failure of supervisors to accept personal accountability for activities under their control as the key blocks to behavioural change.

He also addresses the old chestnut of rewards. Chris notes that Stephen Guastello in a study in 1991 evaluated over 120 occupational accident prevention schemes and found incentives were more effective in enhancing safety than other types of management intervention.

ATLAS COPCO CRAELIUS

World Mining Equipment April 2001 reports on Atlas Copco Craelius' new brand strategy, which is to consolidate its image under the group's strongest brand. Atlas Copco Craelius is a leading maker of drilling equipment and the current product lines are JKS Boyle, Hobic, Diamec, Craelius, Corac and TUFF.

Craelius began in Sweden a century ago making diamond core drills and introduced diamond impregnated bits in 1946, two decades before any other company.

The company sees itself as a one-stop-shop for products and services for exploration drilling and ground engineering. It offers a complete range of core barrels, drill rods, diamond bits and reaming shells for wireline drilling, as well as conventional core drilling. A new Diamec rig offers automatic performance control, which delivers higher output and better component life. The working environment is improved too through automatic rod handling and lower potential for operator mistakes.

The company has launched a Frequent Drillers Club at www.drillersclub.com

MARCSTA Monitor

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