

# MONITOR

Official publication of the  
Mining and Resource Contractors Safety Training Association

## Jim Torlach Award

The winner of the 2008 Jim Torlach Scholarship for undergraduate studies in occupational health and safety is Janaya Patterson. Janaya has worked in the mining industry for 10 years.

She has taken a keen interest in occupational safety and health issues and been involved with mines rescue training for some six years.

Janaya has worked diligently to gain entry to university and will be given every support to realise her ambition to become an occupational health and safety professional.



Left: 2008 Jim Torlach Award recipient, Janaya Patterson

Last year's scholarship winner, Cassandra Prideaux, spent much of her vacation break gaining valuable hands on experience in various safety and health activities with Rinker Australia Pty Ltd in January-February.

The safety activities included quarry operations, dump truck and batching operations. Specific occupational health activities

included dust sampling and alcohol and drug testing.

MARCSTA is committed to ensuring that award winners are provided with practical experience to complement their tertiary studies.



Above: Cassandra Prideaux at Rinker Australia

## New MARCSTA Chairman



At the AGM in December, Ross Graham of Terex Materials Processing and Mining was elected Chairman of MARCSTA.

The Management Committee extends its appreciation to the outgoing Chairman, Joe Maglizza for his tireless efforts since 2004.

Left: Outgoing Chairman, Joe Maglizza, at right: Incoming Chairman, Ross Graham



### In this issue...

- Lightning strikes dump truck.....2
- Avoidance technology for mine haul trucks.....2
- Increase safety awareness with quality signage.....3
- Editorial.....3
- ASCC information sheets.....4
- Educators vital for safety.....4
- SHR's improve the quality of prevention policies.....5
- Nickel West's innovative transitional approach.....5
- OH to move up the agenda for the UK construction industry.....5
- Training provider profile.....6
- Longevity of manual workers.....6
- Training won't prevent back injuries.....6
- Comparative performance monitoring report.....7
- Conference and courses.....7
- New publications.....7
- Worker health and well being.....8
- Health of employees in the petroleum industry.....9
- Important ASCC decisions.....9
- Barriers to improvement of occupational safety performance.....9
- Member profile.....10
- MARCSTA training providers.....10
- News and views.....11
- Ross River Virus on increase.....12



MARCSTA is a not-for-profit Association. All proceeds are reinvested into the industry for future development of safety and training.

### MARCSTA training packages...

As a Registered Training Organisation, MARCSTA delivers occupational safety and health units of competency for the following national training packages: (Applications for recognition of prior learning may be lodged for all training programs)

- Metalliferous Mining
- Transport and Distribution
- Business Services
- Resources and Infrastructure Skills
- Safety Awareness Training (Construction)

## Lightning strikes dump truck with destructive results

The NSW Department of Primary Industries has issued a Safety Alert following the virtual destruction of a large rear dump truck by lightning. Miraculously there were no injuries to personnel.

The stationary and unattended truck had three tyres blown off between 2 to 5 minutes following the lightning strike. Debris extended several hundred metres from the vehicle causing extensive damage to the truck and other equipment.

Apart from the damage to the truck the air blast and shock wave caused damage to the operator's cabin, other equipment and buildings up to 230 metres from the truck.

The Safety Alert made a number of recommendations concerning the potential risks associated with mobile plant in electrical storms.

Source: Mine Safety Report SA08-03, NSW DPI



## Research project to develop avoidance technology for mine haul trucks

CSIRO Exploration and Mining is leading a research project to develop a 360° proximity detection system.

The technology will alert the driver if a hidden object is moving relative to the haul truck, the direction it is moving in, the rate of change of direction and whether a collision is likely.

An important feature is that the detection system will report to the driver in one tenth of a second, much faster than the average human reaction time of the driver.

A prototype has been tested at a Queensland coal mine.

Source: CSIRO Australia (2007, December 12). Collision Avoidance Technology For Mine Haul Trucks.

## Increase safety awareness with quality signage

The best way to manage on-the-job hazards is to make sure every available step is taken to avoid them.

Utilising a safety signage program to keep employees informed and educated about possible hazards, company procedures and general safety tips, is one way to help prevent accidents.

A well planned, well executed signage program not only decreases the chance of work related injuries, but can also increase general productivity.

To convey directional, instructional or safety messages:

- keep signage clear and informative; replace faded or unclear signage
- ensure signage is unobstructed and clearly viewable from all viewpoints
- ensure equipment and machinery display proper safety warning messages

Four basic sign design elements to ensure high quality communication are:

- visibility
- readability
- noticeability
- legibility

The sign must also meet the National Standard (AS 1319-1994 Safety signs for the occupational environment) requirements for colour coding.

Source: ohsonline.com, 12/12/2007



Which is the correct emergency information sign?

See page 12.



Confusion can arise when the National Standard requirements for colour coding is not met?



# Editorial

We have had feedback from a reader endorsing the IOSH (UK) call for legal recognition of qualified health and safety at work advisors, reported in the September edition of the Monitor. It is an idea which has been put up to the successive reviews of the MSI (eg. Kelly) and OSH Acts (eg. Laing) and yet has not rated any consideration, positive or negative, in their reports. By contrast, the Malaysian OSH act has recognised them since its inception. It has now been renewed with Commissioner Kenner so finally it may get the attention it deserves.

The editor can be contacted at Work Safety and Health Associates.  
Tel: 08 9457 6487 or at [wsha@inet.net.au](mailto:wsha@inet.net.au)

The skills audit conducted by the Queensland Division of the SIA in the early 90s defined the competencies for such a role and these were built into the then new Certificate 3, 4 and Diploma in OHS in 1994. They were also considered when the then Worksafe Australia issued its document on competencies for OHS professionals. The competencies were revisited by the Rob Foreman round Australia consultation a few years

ago now and his findings are reflected in the current Certificate, Diploma and Advanced Diploma in OHS. It is not known to what degree the universities teaching OHS have considered Foreman in designing their current undergraduate OHS courses. I published a detailed comparison of the then undergraduate, TAFE and Worksafe competencies thirteen years ago. There was a subsequent comparison, published in 2004, of university courses by Prof. Chris Winder and D. Adbdullah of UNSW. You may also like to read the comments of the head of Victoria's Worksafe on page 4, launching a new cooperative initiative with professional associations, TAFEs and universities.

In an article in the WA SIA journal some years ago I highlighted 86 explicit requirements for documentation in the OSH Regulations, both general and in areas such as workplace safety, plant, hazardous substances, information education and training, competency, inspections by a competent person and procedures for a range of risks. Is it time you revisited your OSH documentation?

October 2005 saw MARCSTA and Prof. Jim Joy run a seminar on better risk assessment. We workshopped the issues identified by a range of people from WA's mining industry, looking at context, scope/design, execution, and application. Negative and positive outcomes after the risk assessments were highlighted. Specific recommendations to deal with education and training, accountability, management support, follow-up/review after assessments, and management of change were also made. Finally, four other issues, hazard ID, attitude to assessment, use of the hierarchy of controls and use of risk analysis methods were considered. It may pay the reader to check their current system against these findings, which can be found on [www.marcsta.com](http://www.marcsta.com).

A final thought. Mamihlapinatapai is a word from the language of Tierra del Fuego, and is considered to be, of the world's words, the one that is most challenging to define briefly. It means "looking at each other hoping that either will offer to do something which both parties desire but are unwilling to do". Let's hope there's not too much mamihlapinatapai out there on site between a supervisor and one of his or her team, when there's some uncertainty about how safe it is to do a job.

Geoff Taylor



Monitor Editor,  
Geoff Taylor

## ASCC information sheets provide interesting statistics

Information sheets on the various major industry sectors released by the ASCC in March provide some interesting statistics on compensated injury and disease across major industry sectors.

### Common causes of compensated injury and disease - % of Total Claims

	Construction 2005/06	Transport and Storage 2005/06	Mining 2004/05
Muscular stress	36%	41%	34%
Falls and trips	24%	22%	22%
Hit by moving object	15%	14%	18%
% of all claims	75%	77%	74%

The near correlation of three causative factors suggests that any serious endeavour to reduce the incidence of serious injuries could and should be a coordinated one.

### Common causes of compensated fatalities

While compensated fatalities in these three major industry sectors do not have a similar consistency vehicle accidents and being hit by a moving object comprise 74% of fatalities in the Transport and Storage sector, 44% in the Mining sector and 19% in the Construction sector.

Another disturbing factor, Long Term Contact with Chemicals and Substances, is emerging as a significant cause of fatalities with 19% of fatalities in the Construction sector and 12% of fatalities in the Mining sector attributed to it.

These figures suggest that exposure to hazardous materials will become a significant contributor to the incidence of compensated fatalities in the future and warrant increased attention by all parties in the workplace to this causative factor.



## Professional associations, vocational trainers and educators are vital for safety

JOHN MERRITT, THE HEAD OF WORKSAFE VICTORIA, HAS ANNOUNCED A NEW INITIATIVE TO ENCOURAGE EMPLOYERS TO WORK WITH PROFESSIONAL ASSOCIATIONS TO IMPROVE UNDERSTANDING OF THEIR EXPERTISE AND QUALIFICATIONS TO BETTER TARGET THEIR WORKERS.

"By working more closely with professional bodies and training organisations we will achieve higher levels of professionalism and improved service for the community," he said.

Currently listed companies are being encouraged to work with the professional associations to detail their expertise and qualifications to better target their work," Mr Merritt said.

"Good OHS practitioners will become better while others with the potential to improve will have the opportunity to be supported by a professional body.

While each organisation will retain its autonomy, professional associations will build on their existing policies to jointly develop updated standards, improved professional development, transparent and consistent complaints handling systems.

The benefit will be more consistent information provided to the community be people trained to a defined high standard."

Mr Merritt said professional associations, universities and other training organisations could also help Worksafe do its job better.

"These groups are in direct contact with workplaces and OHS professionals and have experience and information we can draw on."

## MARCSTA members

### ORDINARY MEMBERS

Ausdrill Ltd  
Barmenco Limited  
BGC Contracting Pty Ltd  
Cemex Australia Pty Ltd  
Cooks Construction Pty Ltd  
GR Engineering Services

### GRD Minproc

Kellogg Brown & Root Pty Ltd  
Komatsu Australia Pty Ltd  
Roche Mining Process Engineering  
Skilled Group Ltd  
Terex Materials Processing and Mining Australia

### Thiess Pty Ltd

Total Corrosion Control  
Westrac Equipment Pty Ltd

### ASSOCIATE MEMBERS

AVELING  
Jako Industries Pty Ltd  
Mandurah Safety and Training Services Pty Ltd  
Mine SafeGear  
Safety First Risk Management  
Strudwick HR



## Safety and health representatives improve the quality of prevention policies

A recent study by the French Labour Ministry has found that SHR's clearly help to improve the quality of prevention policies in workplaces where they are present.

They build participants' awareness and improve risk identification and substantially improve prevention of chemical and biological risks.

Source: European Trade Union Institute, 21/1/08

## Nickel West's innovative transitional process

In order to fast track the transition of HSE and community management systems to meet the demands of its corporate parent, BHP Billiton, Nickel West has developed an innovative process involving two or more 'layers' of management working together to carry out routine audits.

By sharing active roles in the process, line managers can agree on standards, learn from each other and provide coaching as they conduct a joint inspection.

The leadership program has significantly reduced workplace incidents after bolstering the time line managers spend with each other and with employees in the field.

Further details can be obtained from <http://www.cmewa.com.au/UserFiles/File/Publications%20-%20Safety%20and%20Health/FirstWatch8.pdf>

Source: The Chamber of Minerals and Energy WA, First Watch September 07



### Nickel West: Layered Audits

#### Project Summary

Western Australian nickel producer Nickel West has developed an innovative process to fast-track the transition of its health, safety, environmental and community management systems and meet the demands of its new corporate parent BHP Billiton.

The Nickel West HSEC leadership program has significantly reduced workplace incidents after bolstering the time line managers spend with each other and with employees in the field.

The cornerstone of the program is an innovative Layered Audits process that involves two or more 'layers' of management working together to carry out routine audits. The idea is that by sharing active roles in the process, line managers can agree on standards, learn from each other and provide coaching as they conduct a joint inspection. Sharing information and increasing involvement in the workplace, has helped Nickel West realise substantial benefits for its people and its business.

#### Location

Six mines and refineries in the Goldfields and South West of Western Australia.

**Number of employees**  
3,600 employees and contractors

#### Key Learning

Improved cross communication underpins the concept of Layered Audits which maximise interaction between managers and employees leading to reduced injury, better interpersonal management techniques and a boost in employee morale.



FirstWatch magazine is produced by the Chamber of Minerals and Energy of Western Australia to highlight occupational health and safety innovation and best practice in the WA resources sector. For more information, or to nominate a project, contact Rae Lyn Chan, Project Officer - Safety and Health, [rlchan@cmewa.com.au](mailto:rlchan@cmewa.com.au) or telephone (08) 9228 8211. Visit the complete collection online at [www.cmewa.com](http://www.cmewa.com)



## Occupational health to move up the agenda for the UK construction industry

The UK Health and Safety Executive (HSE) have launched a new online resource, Construction Occupational Health Management Essentials (COHME) to help the construction industry tackle occupational health issues.

The HSE claim that the COHME tool will equip all construction companies with practical advice on how to tackle rising occupational health issues such as dermatitis, asbestos, respiratory diseases and musculoskeletal disorders. It will also facilitate the initiative and leadership that the construction industry needs to take to tackle the issue of occupational health.

Last year 1.8 million days were lost due to work related ill health, twice the number lost due to accidents.

Source: TUC Risks 342, 9/2/08

# Training provider profile Stacey Clark



Stacey Clark was first drawn towards mining after attending an Open Day at La Trobe University in Bendigo in 1990 where she saw the mineral processing exhibitions of the Metallurgy Department.

Stacey has been involved with training in the Mining Industry for 11 years at Bendigo Regional Institute of TAFE (BRIT) and is currently Sector Coordinator of the Mining Department. She has developed a program for training green miners who are work ready. The focus of the program is on safety and following safe work procedures. Mining students are trained in underground mining at a local underground gold mine where they learn scaling, airleg mining, installing ground support, and installing ventilation, air and water services. Students are also trained for open cut mining and processing plant operations, where they learn to operate front end loaders, forklifts and elevated work platforms and conduct confined space entry.

Stacey says: "Safety is at the core of all our training so we wanted to include the MARCSTA general safety induction in our program."

She plans to expand the program to include an online Certificate IV in Metalliferous Mining to assist persons at remote locations to gain qualifications. She also assists mining companies with their training needs by auspicating training and conducting audits on training processes.

Stacey has a Bachelor degree in Metallurgy, is a licensed Level 2 First Aid trainer, and is authorised by WorkSafe Victoria to train and assess "Licence to Use Blasting Explosives". She anticipates running the MARCSTA induction on a monthly basis in 2008.

## Longevity of manual workers

A French study has found that manual workers not only have a shorter life expectancy than people in highly qualified occupations but also spend more years with disability.

In 2003 males aged 35 in highly qualified occupations could have expected to live a further 47 years of which 35 years would be free of disability.

Male manual workers of the same age could be expected to live a further 41 years of which 24 years would be free of disability.

Source: Population & Societies, 441, January 2008

## Training won't prevent back injuries

Research published in the British Medical Journal in February and funded by the Federal Department of Employment and Workplace Relations (Australia) has concluded that there is no evidence to support the use of advice or training in working techniques, with or without lifting equipment, for preventing back pain or consequent disability.

The findings challenge the current widespread practice of advising workers on correct lifting technique. Either the advocated techniques did not reduce the risk of back injury or training did not lead to adequate change in lifting or handling practice.

Source: TUC Health and Safety 31/1/08

### FOR PRACTITIONERS

So, if we believe the lifting techniques do work (or at least help) how do we get people to put them into practice?



# Comparative performance monitoring report, Feb 2008

The recently released Report of the Workplace Relation Minister's Council contains some interesting comparative figures in relation to the enforcement activities of the respective state jurisdictions.

Year 2005/2006 Number of	NSW	VIC	QLD	WA	SA	TAS
Field Active Inspectors per 10,000 workers	1.1	1.1	1.3	1.2	1.4	1.5
Legal Processes Commenced	459	136	174	37	71	15
Prosecutions Resulting in Conviction	340	70	143	41	51	12
Total Amount of Fines Awarded by the Courts \$,000s	13,878	3,532	3,823	383	1,42	157
Average Fine per Prosecution (data added by MARCSTA)	40,817	50,457	26,734	9,341	20,431	13,083
Incidence Rates of Serious injuries & Disease	16.9	12.9	18.0	13.3	18.0	17.7



It is interesting to note that while Victoria had the lowest incidence of serious injuries and diseases (marginally better than WA) it had the highest average fine per prosecution (more than five times the average in WA).

An independent review of the Victorian OHS Act 2004 has recommended that the level of resources of its regulatory authority's prosecutions and investigations branch needed to be increased "to more effectively undertake strategically targeted prosecutions in the public interest."

Utilising a prosecutorial approach to achieve OHS outcomes was rejected by the Robens Committee some 35 years ago "due to its limited role in improving standards of safety and health at workplaces."

The Western Australian regulatory arm has been able to retain its consultative, advisory approach vis-a-vis a prosecutorial approach, as recommended by Robens with excellent comparative results.

It will be interesting to see if the recommendations of the Victorian Review are acted upon and if so, whether a "strategically targeted approach" results in improved OHS outcomes. If implemented, it will certainly result in an increase in prosecutions and in fines which are already, on average, the highest in Australia.

## Conferences and courses

First International Seminar on the Management of Rock Dumps, Stockpiles and Heap Leach Pads, Novotel Perth, 5 – 7 March 2008. Fax: 08 6488 1130 Email: [acginfo@acg.uwa.edu.au](mailto:acginfo@acg.uwa.edu.au)

Mining World Russia. 12th International Exhibition on Mining and Processing of Minerals. Moscow, 16-18 April 2008. Contact: ITE Group, [enquiry@miningworld-events.com](mailto:enquiry@miningworld-events.com).

12th US/North American Mine Ventilation Symposium, Reno, 9-11 June 2008. Email: [mouset@unr.edu](mailto:mouset@unr.edu)

MASMin 2008. 5th International Conference and Exhibition on Mass Mining, Lulea, Sweden, 9-11 June 2008. Contact: [info@massmin2008.com](mailto:info@massmin2008.com).

Open Pit Slope Stability Course, Ibis Hotel, Perth, 24-25 July 2008. Fax: 08 6488 1130 Email: [acginfo@acg.uwa.edu.au](mailto:acginfo@acg.uwa.edu.au)

12-14 August 2007, WA Safety Conference, Perth Convention Centre, Safety Institute of Australia in WA

MINExpo 2008. Las Vegas, 22-24 September. Fax: 0011 1 630 434 1216 Website: [www.minexpo.com](http://www.minexpo.com)

24th International Mine Processing Congress, Beijing, 24-28 September 2008. Email: [impc2008@impc2008.org](mailto:impc2008@impc2008.org)

## New publications

Creighton. B and Rozen, P. (2007). Occupational Health and Safety Law in Victoria 3rd ed. Sydney, The Federation Press.

Office of Federal Safety Commissioner. Case studies on managing safety in building and construction. See [www.fsc.gov.au/ofsc/Otherinformation/Publications/CaseStudies.htm](http://www.fsc.gov.au/ofsc/Otherinformation/Publications/CaseStudies.htm).

Queensland Government. Make Safety Their Monument – video on Queensland's major mining incidents.

WorkSafe Victoria, Working Safety in the General Construction Industry and Working Safely in the Housing Construction Industry. See [www.worksafe.vic.gov.au/safer construction](http://www.worksafe.vic.gov.au/safer%20construction).



Issue 1/2008

# Worker Health and Well Being

## Workplace flexibility leads to employees with healthier lifestyle habits

New research carried out at Wake Forest University School of Medicine (USA) has found that employers who provide workplace flexibility that is perceived by employees as genuine, encourage healthier lifestyle habits in their employees.

Individuals who perceive a genuine increase in their flexibility are more likely to start some positive lifestyle behaviour, said the lead researcher Dr Joseph Grzywacz.

Data for the study was from employees of a large pharmaceutical company recognised as among the most family-friendly employers in the USA because of its commitment to flexibility such as compressed work weeks, flexitime, job sharing and remote or telework. Employees included executives, administrative support staff and warehouse and production workers.

The study focused on frequency of physical activity, engagement in stress management programs, participation in health education activities, healthful sleep habits and self-appraised overall lifestyle.

Overall the results showed that nearly all the health behaviours examined in the study were associated with perceived flexibility.

Source: ohsonline, 18/12/2007

## Insomnia diagnosis and management

In a peer reviewed article in Medicine Today concerning the diagnosis and management of insomnia the authors affirm that difficulties with sleep onset, sleep maintenance or early waking can be disturbing and have a negative impact on quality of life, decreasing mood, increasing absenteeism and reducing economic productivity.

It is estimated that 40 to 50% of individuals with insomnia experience a mental disorder such as depression. There is also a considerable overlap between generalised anxiety disorder and insomnia.

The most beneficial treatment of insomnia improving total sleep time and general sleep quality and reducing sleep latency times and waking after sleep onset is cognitive behaviour therapy (CBT).

The use of drugs is considered not the best first line option.

Shift workers or night workers are particularly susceptible to broken sleep or sleep maintenance during the day. Consequently they are at risk of experiencing similar negative impacts on their quality of life.

Adequate quality sleep is crucial to quality of life and physical and mental health.

Source: Medicine Today, August 2006

## Need your sleep? Stay out of hospital!

According to a new report by a team at the University of Texas South-western intensive care units are so noisy and disruptive that patients cannot get the restoration sleep they need to heal.

Nurses, doctors and technicians argue that their schedules require regular checks on patients even through the night. Dr Randall Friese who led the study claims, however, that current clinical-care protocols routinely and severely deprive critically ill patients of sleep at a time when the need for adequate rest is perhaps most essential.

The study monitored the sleep patterns of ICU patients who had suffered traumatic injuries or had abdominal surgery. Although it appeared that patients were getting enough sleep, their brain wave patterns showed their sleep was fragmented and superficial.

Dr Friese suggested that if the stressful environment could be neutralised, hospital stays could be shortened, infection risks could be lowered and patient wound healing increased.

Source: ABC Science Online, 11/12/07

## IARC concludes shiftwork that disrupts circadian rhythm is probably carcinogenic to humans

The Working Group of the International Agency for Research on Cancer has concluded, on the basis of "limited evidence in humans for the carcinogenicity of shift work that involves night work" and "sufficient evidence in experimental animals for the carcinogenicity of light during the daily dark period" that shift work that involves circadian disruption is probably carcinogenic to humans.

The conclusion was reached by 24 scientists from 10 countries in October 2007.

Further studies will need to be conducted to confirm this conclusion and similar conclusions regarding firefighters. IARC Director, Dr Peter Boyle, commented that because there is credible evidence linking shift workers and firefighters with increased risks of cancer, it is important to identify what it is about such occupations that may increase the risk of cancer so that preventive measures can be implemented to avoid such risks.

Source: thelancet.com, Lancet Oncology 2007; 8:1065-1066

The recent decision by the IARC to classify shiftwork involving night work as a 'probable carcinogen' has raised many questions and concerns for employers and employees.

Circadian 24/7 Workforce Solutions have produced a free white paper which puts all of the key issues into context and gives practical advice on what managers and shiftworkers can do to minimise any potential risks.

To obtain the paper visit [http://www.circadian.com/pages/476\\_does\\_shiftwork\\_cause\\_cancer\\_cfm](http://www.circadian.com/pages/476_does_shiftwork_cause_cancer_cfm)

## The health of employees in the petroleum industry

For the past 27 years the Australian Institute of Petroleum (AIP) has sponsored the independent Health Watch study to monitor the health of employees in the petroleum industry.

Some 19,000 past and present employees are followed during and after they leave or retire.

The latest results released in November 2007 contain some interesting findings:

### DEATH RATES

Compared with the general population and after allowing for age differences:

- The death rate in men and women is significantly lower
- The death rate for men in all major disease categories is significantly lower

### CANCER RATES AND THE RISK OF LEUKAEMIA

The change of developing most types of cancer is not different from other Australians.

### ASBESTOS-RELATED LUNG CANCER

Few, if any, asbestos-related lung cancers have occurred in the Australian petroleum industry.

### MELANOMA

The rates of this type of cancer are raised, although the reason is unknown. It appears unlikely that the increased rate is due to any workplace factor. Most importantly, the death rate from melanoma is the same as that of the general population.

Source: 2007 Health Watch, 13th Report, AIP, Monash University

## Important decisions taken at ASCC meeting

### NATIONAL LICENSING STANDARD – LICENSING UNITS OF COMPETENCY

The ASCC endorsed the licensing units of competency that underpin the National Standard for Licensing Persons Performing High Risk Work. Additionally, the Council noted that the licensing units of competency will be added to the National Standard as a schedule and that the remaining work on assessment instruments will be completed by the end of April 2008 thereby enabling Registered Training Organisations to adopt the new materials by the 1 July 2008 implementation date.

### COMMONWEALTH GOVERNMENT POLICIES ON OHS

The Council noted the outcomes of the 1 February 2008 Workplace Relations Ministers' Council (WRMC) meeting and the Australian Government's commitments in respect of occupational health and safety. In particular, WRMC agreed to replace the ASCC with a new and independent national body and supported the Commonwealth's intention to initiate a review to develop model legislation. ASCC members committed to working cooperatively throughout this period.

## Barriers to the improvement of occupational safety performance

A 2006 study carried out by Monash University that focused on the barriers to the achievement of a positive safety culture or climate has yielded results relevant to major organisations.

The researchers conducted semi-structured interviews with 120 managers and occupational health and safety professionals working within one organisation at a time when it was in the process of introducing and implementing an OHS strategy aimed at decreasing injury and accident rates through the improvement of organisational safety culture and safety climate.

The key aim of the research was to ask "what are the key issues involved in the introduction and implementation of an organisational safety strategy?"

If you think you can guess what the key barriers identified were, write them down and go to page 12 to check them against the study findings.

**“What are the key issues involved in the introduction and implementation of an organisational safety strategy?”**

See page 12 for the Findings

### Kiwi safety vest

A New Zealand based company, Exelite, has developed a "flashing light" safety vest which utilises cutting-edge technology and principles of design to provide the highest level of night time visibility at distances of up to 800 m even in low light. The technology provides extra personal safety even in extremely dark conditions and severe weather.

The company claims that the product has been adopted on mine sites throughout Australia.

See [www.exelitesafety.com](http://www.exelitesafety.com).

# Member Profile - Terex Mining

TEREX Mining Australia is part of the TEREX Mining Worldwide Sales and Service Support Network of subsidiaries servicing the mining industries in the regional markets of Australia, Papua New Guinea and Indonesia and supporting more than 500 large-scale mining units in the region.

Together with the provision of products for this market, TEREX Mining Australia places strong emphasis on product support with significant investment in product support facilities, people and inventories. Its service team is committed to providing the highest level of product support and is always prepared to help and advise with requests for parts or other information.

TEREX Mining Australia's corporate head office is located in Perth, Western Australia with branches in Rutherford, New South Wales and Mackay, Queensland.

TEREX Mining is committed to providing competitive quality products coupled with quality service support over the life of the equipment.

Terex Mining Australia is continuing to focus squarely on team members' health, safety and wellbeing not only in the workplace, but by creating links between home and workplace.

This has been by way of the creation of "personalised" safety posters. This concept sends a very powerful message to team members and family that what occurs at work with regard to safety is directly linked to home life, and of how the devastation of an injury can affect those at home.

There have been a number of positive safety changes within the workplace, one of the more significant being the focus on, and move to, "Zero" injuries. This means that the aim is that "no-one at work will be harmed in any way".

Number of Injury Free Days is now the main performance indicator for all Terex Mining Australia site safety.



## MARCSTA licensed training providers

Mark Adam  
Jayson Aveling  
Graham Bailey  
Ron Baker  
Carl Berglin  
Wayne Berkrey  
Danny Bognar  
Stacey Clark  
Scott Clarke  
Brian Cloney  
Dale Cocker (U) (S)

Jim Dandie  
Geoff Day  
Peter Dowding  
Joe Duyvestyn  
Linda Elezovich  
Donelle Fraser  
Ross Graham  
Ray Hargreaves  
Sheryl Henley (C)  
Jeffrey Hickin  
Peter Jones

Ralph Keegan (S)  
Rob Lewis  
Joe Maglizza  
Les McIntyre  
Neil McMeekin  
Guy Mead  
Katherine Montague  
Rodney Pool  
John Preston  
Merryn Richards  
Jason Roberts

Victor Roberts  
Shane Salt  
Grant Shearwin  
Marcus Taylor  
James Titmus  
Peter Tynan  
Ron Van Baaren (C)  
Micheal White  
Anne-Marie Widermanski  
Graham Williams  
Paul Willoughby

All training providers listed provide general inductions.  
C denotes the Construction Safety Awareness program  
U denotes the underground program.  
S denotes the extended working hours program.



# news and views

INFORMATION ON GENERAL NEWS AND VIEWS  
WITHIN THE MINING INDUSTRY,  
BOTH NATIONAL AND INTERNATIONAL.

Mining Journal for 14th December 2007 notes that CSIRO with ACRA assistance is developing collision avoidance technology for haul trucks, with a 360 degree proximity detection system based on Doppler radar and is trialling it at Goonyella.

Australian Journal of Mining November/December 2007 contains a short article on managing the human side of the Beaconsfield rescue, noting that preoccupation with failure is an ingredient for success. It also writes on Safelok polypropylene pipe fittings which use a slide and tighten system. If the nut (which is orange) is backed off, air pressure emits a signal, and the pipe is retained in the fitting. Polypropylene, if it fails, does so in ductile not fracture mode. The EPDM O-ring has superior chemical resistance.

Engineering and Mining Journal for October 2007 mentions the tourist section of the Sala silver mine in Sweden 120km from Stockholm which opened in 1690. It has an underground lake, a ghostly female apparition and a dual system of interconnected lifts for safety. There is also an article on welding abrasion resistant plate, on Philadelphia Gears' White Paper on acoustic design of industrial machinery, noting 11 gear-related noise sources and ways to tackle them, on FullPro's safety glasses which attach to earmuffs and so don't break the seal, on StanleyProto's new extraction tool for nuts and studs, which can split a frozen nut up to 46mm, and on Leica's deformation monitoring system which offers durability, simplicity and high quality measurement.

Mining Journal has a 23 November Tantalum Supplement which notes that WA currently produces 50-60% of world tantalum from Wodgina. Turbine parts, surgical devices, cathodic protection, lenses, and compact capacitors (for eg. cochlear implants) are some uses.

In Australian Mining November 2007, Daniel Hall writes about LifeAid and the need for good primary health care at minesites, with a call for governments to spell out the scope of practice and qualifications for first aid staff, paramedics and nurses. Martin Knee, the WA SME, also crystal gazes into mining's future (in an article originally in Minesafe), and includes an interesting quote from the US' first astronaut, Alan Shepard, commenting that it's a sobering feeling to be up in space and realise that one's safety factor is determined by the lowest bidder on a government contract. There is also a review of WA mine safety statistics, a warning on the danger of gwardars (snakes), and mention of Rio Tinto starting FIFO from Busselton. It takes material from Rio's Coastal newsletter including the advantages of using AC haul trucks at Yandi, and their graduate mechanical engineer Aaron McGrail's pneumatic railcar pin lifter, developed with Tyco. Also mentioned are Davey Bickford's leaky feeder based underground wireless blasting system, and Wilco Technologies shoot-in resin capsule for rock-bolt holes.

Queensland Government Mining Journal Summer 2007 has articles on 75% better capture of carbon dioxide using coal-based gasification to feed a power station, greening black coal mining, the National Emissions Trading Scheme, and geosequestration in deep coal seams. Included are the CSIRO trials of automated large hot metal carriers at Bell Bay smelter, attracting female staff into mining, the 2007 changes to Queensland's nine mining and energy acts, a legionnaires case at a mine in 2006, and on ergonomics in mining. On that note, readers may be interested in Australian Barbara McPhee's comparatively recent book Practical Ergonomics – Application of Ergonomics Principles in the Workplace.



## *Who's who?*

### **Chairman**

Ross Graham, Terex Materials Processing and Mining

### **Deputy Chairman**

Joe Maglizza, Cemex Australia PL

### **Director Safety and Health**

Patrick Gilroy AM

### **Committee of Management**

Warren Claydon

Allaine Coleman

Terry Condipodero

Peter Nicholls

Gary Round

Kim Stewart

### **MARCSTA Monitor Editor**

Geoff Taylor

## Ross River Virus on the increase

Increased incidence of Ross River Virus has been reported following above average late spring rain and regular high tides flooding saltmarsh mosquito breeding sites.

The Department of Health WA has issued a warning for all areas where environmental conditions continue to favour mosquito breeding.

Areas most affected are the south west, particularly the Peel region, and also the Esperance and Kimberley regions.

Symptoms are painful or swollen joints, sore muscles, skin rashes, fever, chronic fatigue and headaches, which can last for weeks or months.

Having a blood test is the only way to diagnose the virus.

There have been 20 reported cases in the Goldfields-Esperance region since July 2007 and the Department of Health advises that recent cool conditions and rainfall could create a breeding ground for the disease.



## Barriers to the improvement of occupational safety performance - Findings

### Commitment and buy-in

In the research commitment was perceived as an issue that could prevent the implementation of the new strategy. Commitment was discussed in terms of who should show commitment and how commitment can be displayed.

Support, or buy-in, was seen as being critical to the success of the strategy, but more importantly, a lack of effort in the past to obtain such support was seen as a barrier to implementation.

### Dedication of resources (money, time, control, expertise)

In the majority of cases, control was perceived as being available to the leadership group to implement change. Money, however, was often a little more difficult with some respondents recognising money as a limitation, while others perceived the importance of occupational safety to justify the expenditure.

The issue of time and the dedication of resources were seen as being quite strongly integrated. Some people found they simply did not have the time in their role or position description to perform safety tasks to their full capacity.

An additional issue was not having sufficient staff on site to effectively administer OHS programs.

### Characteristics of the existing culture

- The extent to which production and cost effectiveness were central to organisational values. (the current focus is on productivity and profit rather than safety)
- Safety is not necessarily a priority simply because it is the 'right thing to do'.
- Social responsibility is a critical issue within the contemporary organisational context but has not necessarily infiltrated perceptions of occupational safety in this case.

Are we concerned about safety? Yes, we are.

Is it our priority? No it's not!

Source: Monash University, Working Paper 28/06.

## From S 1319-1994, Safety signs for the occupational environment

Section 2.3.5 Emergency information signs shall comprise white symbol or worded legend, or both, on a green rectangular sign with white enclosure.



## IALI Conference

The first International Association of Labour Inspectors conference in the Pacific region was held in mid March in Adelaide.

