

MONITOR

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Mining and Resource Contractors Safety Training Association

The two keys to safety

The next time you are trying to figure out what you can do to get your employees to do their jobs more carefully and more safely, give yourself a two-question test:

Question #1: What is the one thing that every survey tells us keeps employees happier, more loyal, and more satisfied with the job they have? The answer is **appreciation**. When employees feel that they are appreciated, it outweighs even monetary considerations for job satisfaction.

We tend to think of appreciation in the executive offices or at any management level, but what about your employees who perform the most physically demanding jobs? How do you demonstrate to them that you appreciate they have difficult jobs and also that you appreciate them for doing those jobs safely?.

Question #2: Who is your strongest ally in encouraging safe behaviour? The answer to this one is your employees, of course. Only when they carry the message that safe behaviour is important to them will you achieve a safe workplace. We call that **accountability**.

When you combine employee appreciation with employee accountability, you will have fewer accidents, fewer claims, and a safer, healthier company. The one proven way to do that is by implementing a great safety incentive program.

How They Work Together

The most successful safety incentive programs are built on a foundation of appreciation and accountability, the same two qualities that great companies spend a fortune trying to create.

Employees engaged in labour intensive jobs, whether they are in manufacturing, warehouse, housekeeping, or a host of other physically demanding occupations, e.g. mining, are challenged to make good decisions every day. Do they reach around the machine guard, or do they go to the trouble of stopping the machine to correct a jam? Do they observe the speed limit on the forklift, even though there doesn't seem to be anyone around? Is it worth the trouble of putting a towel down to clean the tub when they are pretty sure they won't slip? How do you motivate your employees to make the right - the safe - decision every time, even when it means they will have to go to greater effort or it will take them longer?

Think of your own job and how many times you are required to do more than the minimum, perhaps to stay late to finish a project, to rewrite a memo from your boss that doesn't sound right, or to make a report look great rather than just acceptable. Think how you feel when your extra effort is recognised and your boss compliments you on your work. That is appreciation, and it makes all of us tick. It makes all of us want to continue to provide excellent work. So, now, think about your employees in the plant. What recognition does the employee receive who takes the time to stop the machine or to always observe your safety rules?

How do you motivate your employees to make the right - the safe - decision every time, even when it means they will have to go to greater effort or it will take them longer?

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The two keys to safety (continued)

A safety incentive program provides a company with the opportunity to give recognition to every worker and show them appreciation for doing the right thing - performing their job safely and by the book.

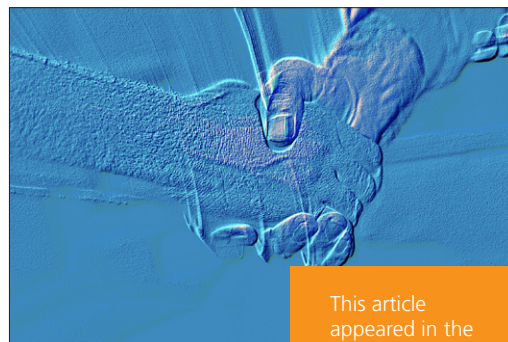
To make your safety incentive program motivational, you must have awards that motivate. Let's be honest: Small tokens such as hats and T-shirts don't motivate anyone with the possible exception of your best employees - and it is the not-so-great employees that you have to get to.

Appreciation is not as effective if there is a lack of accountability. If all we receive is praise, how do we measure its sincerity? If we are going to recognise an employee for making the right decision, we also have to recognise the employee who makes a decision to perform his job unsafely or dishonestly.

Accountability comes from discussing the injuries every month and asking the group how they could have been avoided.

Your safety awards meeting must come alive. It must be interactive, with recognition and applause.

Carelessness and fraud have no hiding place when injuries are discussed in an open forum. No accusations, no recriminations, no putting the employee in front of the group. Instead, you are able to lead a discussion of the accident and how it could have been prevented with the goal of teaching in the best possible environment, and with everyone's attention. This kind of accountability makes your employees part of the safety culture. If their awards are dependent on their safety performance, then you have given everyone a reason to look out for one another's welfare and to encourage safe behaviour. Watch your careless accidents go down and your fraudulent claims virtually disappear.



This article appeared in the June 2006 issue of Occupational Health & Safety (Stevens Publishing), written by Joseph Stevens.

Useful Ground Rules

Here are some ground rules to making your safety incentive program effective:

- Don't rely on games or gimmicks. Bingo was a short-term solution 20 years ago but has nothing to do with a real safety culture.
- Give fewer awards, but make them meaningful. Pizza doesn't change behaviour.
- Make your safety meetings an event! Make them fun and memorable so your employees look forward to them. Morale plays a big role in safety.
- Balance the appreciation with accountability. Before any award is made, discuss every injury and how it could have been prevented. This is the right forum to do that.

One more suggestion: Don't be afraid to make small changes to your program. Keep it interesting and fresh. Add prizes if you prefer cash as your main incentive, or add cash if you like prizes. Change shows you are involved and the program is important, not just a gimmick to reduce claims. If you keep the principles of appreciation and accountability in mind, you will have the best possible guide to delivering a meaningful, positive, and effective safety incentive program.

Strategic audit of MARCSTA training finds high level of client satisfaction

A strategic industry audit of MARCSTA's training activities by the Office of the Training Accreditation Council has found that the organisation demonstrated compliance with all relevant aspects of the Australian Quality Training Framework Standards. MARCSTA was commended on the work it has done to comply.

The audit noted the stringent quality assurance process under which MARCSTA training providers operate and the high level of student and client satisfaction evident.

MARCSTA will work to ensure that any opportunities for improvement noted by the auditor will be actioned..



Editorial

For a safety practitioner, a trip to China provides some interesting insights, and some arresting comparisons.

The Chinese character for *safety* is based on a mother in a house. The Chinese character for *hazard* is based on a man on a cliff, below which are wild animals.

Talking to our host about defining the differences between *hazard* and *risk*, involved standing on the edge of a lakeside embankment in the Summer Palace in Beijing and

then moving nearer to the edge. She commented that I tended to see everything through safety, not rose-tinted, glasses.

A street side notice board in the capital provided the passer by with instructions in the meaning of the safety signs we are all familiar with.

We watched workers working at heights over a river attempting to safely service the shiny metal plating on a large dragon's tail which formed part of a floating restaurant.

The channeling of pedal-powered vehicles and electric bikes into their own traffic lane was sensible but leads to the need for extreme care where turning vehicle traffic has to cross the stream of pedal vehicles. But there were very few helmets, with velvet-finished ones favoured by those women who wore one.

The use of "seconds remaining" indicators on traffic lights was very useful, aided and abetted in some places by up to four traffic wardens.

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There is clearly less concern there about "what other people think", when it comes to use of PPE by women in the street. Surgical masks are not uncommon, nor are dark full-face shields designed to reduce sun exposure.

In Hong Kong a hotel lobby sported a temperature detector above the head as one approached Reception, designed to detect those who might be suffering SARS or bird flu. And there is a tick box to record "sniffles" on China's internal airlines, and for "temperature" if one is using ferry transfer from Hong Kong to the mainland.

The four storey fabric market in Shanghai with its many bolts of cloth and many people was, pleasingly, clearly conscious of safety with easy access to clearly marked stairs, and signs noting "Ensure correct condition of fireproofing". Street side fire hydrants were reassuring, but for the pedestrian, very stubby.

It was surprising though to see open overhead luggage racks on the Maglev train which travels at up to 430 kph.

We were told that construction workers can down tools when the temperature reaches 40C. As a consequence, it never reaches 40C, as that involves loss of a day's pay!

And of course there was a visit to the world's greatest example of segregation to combat a risk - from invaders - the Great Wall, which didn't actually in fact operate as planned.

On our return to Perth, I read of the man who punched people on each side of his walk down the aisle of a Perth train. I was reminded of the sign in a Chinese metro station: "After first under on, do riding with civility".

Trainers one and all would be interested in one vocational training college which proclaimed in large letters that it was the *Cradle of Grey Collar Talents Developed*, which we are sure it was.

None of this relates to mining in particular, but nonetheless some lessons can be drawn. Ensure personnel from whatever background do understand and follow safety signs. Keep up those JSA's for one-offs (the dragon's tail). Review traffic arrangements on site. Provide a warning where safety conditions are about to change.

Keep abreast of occupational health, not just occupational safety, issues, including travel risks. Try to ensure that safety initiatives don't have a downside. Don't assume that high-tech always means that safety, including consequence reduction in an incident, has always been thought through by others. Avoid lip service to safety rules. (Why would anyone in one northwest town not isolate a conveyor before maintenance and get sacked two weeks after two people in the same area were injured because they too didn't isolate?). And make sure your choice from the hierarchy of controls really works.

WA drug use highest in the country

The Australian Institute of Health and Welfare (AIHW) claims that the addiction to amphetamines is higher in Western Australia than elsewhere in the country.

National Drug Research Institute director Steve Allsop blames the addiction rate on the younger population, lifestyle and a shortage of available heroin making addicts turn to alternative drugs.

Copies of the report "Alcohol and other drug treatment services in Australia 2004-05" can be obtained from the AIHW, telephone 61 2 6244 1032.

Source: The West Australian, 27 July 2006, page 9, WA hit hard by amphetamines.

Also see article Monitor, Vol 10, Issue 2, June 2006, P2, Concern over Drug Use in the Eastern Goldfields

Lack of fall protection incurs substantial fine

A WA building company was fined \$7000 recently for failing to provide a safe workplace following a fall from the roof of a two storey house being built at Greenhead.

There was no scaffolding on the side of the house where the employee was working and no edge protection or fall protection system in place.

The injured employee spent three months in the Shenton Park Spinal Unit.

A code of practice on falls has existed in WA for the past 17 years. The current code is available by telephoning WorkSafe on 61 8 9327 8777 or on the website www.worksafe.wa.gov.au.

Source: DOCEP Media Release, 3 July 2006

On average two Western Australians die every year as a result of workplace falls, with around 1,260 additional injuries, many of them serious and permanent.

WA employee fined for breaching duty of care to a fellow worker

A foreman at a Jandakot metal fabrication company has been fined \$5,000 in the Fremantle Magistrate's Court for adversely affecting the health and safety of another person in the workplace after a co-worker had four fingers amputated.

The incident occurred when the foreman jammed the guarding system so the machine would operate without the guard in place.

WorkSafe WA Commissioner Nina Lyhne commented that there is a need to put a stop to the workplace culture that says working without guards is OK.

Source: DOCEP, Media Release, 21 June 2006, Employee fined over amputation



**OVER 9,000
PEOPLE HAVE
BEEN MARCSTA
INDUCTED SINCE
JANUARY 2006**

MARCSTA members

FULL MEMBERS

Ausdrill Ltd
Australian Raise Drilling
Barmingo Mining Contractors
BGC Contracting
Brambles Ltd
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Readymix Holdings Pty Ltd
GRD Minproc

Komatsu Pty Ltd
Macmahon Pty Ltd
Roche Mining
Roche Mining (JR) Pty Ltd
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Total Corrosion Control
Westrac Equipment Pty Ltd

ASSOCIATE MEMBERS

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QFS Australia

This list is current at the time of going to press. For further information contact the Secretariat (08) 9355 1400

High pressure hydraulic equipment fatally injures employee

A contractor taking fluid samples from a longwall hydraulic system at an underground coal mine was fatally injured. The contractor was found adjacent to an open high-pressure hydraulic staple connection. Fatal injuries were consistent with hydraulic injection.

Although specific recommendations are not yet available, the NSW

Department of Primary Industries has reminded all mines of their responsibility to include the management of high-pressure fluid systems as an integral part of their mine safety management system.

Source: NSW Department of Primary Industries, Safety Alert, Mine Safety Report No. SA06-16, 4 August 2006.

The MARCSTA General Safety Induction has always emphasised the risks associated with the use of high pressure air.

NSW Department of Primary Industry issues safety alerts

Safety alerts have been issued recently following unplanned movement of an elevating work platform in which an operator and his assistant were injured and trapped when the machine suddenly moved forward causing the basket to crash into the bucket of a shovel.

Another alert stated that mobile equipment manufacturers' information on transmission and retarder performance is being misinterpreted and may result in mobile equipment being used on steeper grades than those on which the mobile equipment can safely stop, in the event of a transmission failure.

Both reports cover the circumstance, investigation and recommendations for the issues.

Source: Mine Safety Report No. SA06-14 26 June 2006, Mine Safety Report No. SA06-15

Young workers injured on their first day at work

Two workers, aged 17 and 20, were injured in the Hunter Valley, NSW, in March 2004 when a one tonne steel headframe they were loading fell from its supporting cradle and struck them. One suffered a fractured skull which required the insertion of a steel plate.

The incident occurred within two hours of their starting work.

The responsible company and one of its directors were recently fined \$107,000 in the NSW Industrial Relations Commission. The judge found that the workers had received only cursory and inadequate instruction and minimal supervision.

Source: NSW Mine safety update, June 2006, Page 5, Inexperienced and young workers require proper training and supervision

Turning to drink as a result of work related stress

A survey of 2,200 men in the United Kingdom, commissioned by the vitamin firm Vitabiotics Wellman, has shown that one in five had suffered from depression or experienced aggressive outbursts as a result of stress. The study revealed that one in three men hit the bottle to try to switch off from work and more than a quarter are suffering from exhaustion as a result of stress. Seventeen percent have been to see a doctor about their stress levels.

Source: Trades Union Congress, UK, Risks 261. 17 June 2006

trench death

In New Zealand, a worker was crushed to death while carrying out maintenance on an irrigation system in July. He was working in a 2 m x 3 m deep trench when it collapsed. The ground was extremely wet after recent heavy rain.

Three other men were working on the site when the accident happened.

Source: The New Zealand Herald, Worker dies when trench collapses, 12 July 2006



Above: A trench can be a wall collapse, flooding or confined space hazard.

Professional development workshop scheduled for early November

An intensive workshop for safety and health professionals will be conducted later this year. The objectives of the workshop will be:

- to identify obstacles to and methodologies for reducing the incidence of serious injuries.
- to identify shortcomings in current approaches to incident investigation; and
- to identify methodologies for reducing noise exposure and hearing loss in the workplace.

Attendance will be limited.

A program and registration form will be available in early September.

Expressions of interest should be emailed to pfs@marcsta.com.

ISMSP members

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David Bies
Dale Cocker
Dr Mike Gouws
Professor Peter Lilly
Nick Mabbott
Jason Roberts
Mal Sanders

Professional

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Reuben Barber
Terry Condipodero
Geoff Day
Linda Elezovich
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Rob Filmer
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Geoff Knight
Taff Langley
Peter Luobikis
Joe Maglizza CMSP

Michael McCudden
Brett McIntosh
Vic Roberts
William Roche CMSP
Grant Shearwin
Stephen Smith
Noel Wendt
Stephen Woods
Amanda Youngman

UK construction company practice 30 years behind the times

A Health Safety Executive UK (HSE) inspector shocked by the standards of health and safety prevailing at building sites in Bradford UK described the conditions and situations as "fatal accidents waiting to happen."

Of the 61 sites visited:

- voluntary cessation of work was agreed at 18 of them;
- four received Prohibition Notices; and
- one Improvement Notice was issued.

Frequently encountered incidents included poor standards of scaffolding.

The inspector likened the unacceptable safety standards to those he saw in the early 1970's.

Source: Safety News UK, Media Release, 7 August 2006

US workers' safety concerns don't reflect reality

A recent survey of American workers has found that accidental injury ranks only third on their list of top safety concerns following violent crime and national disasters.

Accidental injury in the USA is the leading cause of death for people under 40 and the fifth-leading cause for all ages.

The survey, conducted on behalf of the National Safety Council (NSC), also found that more workers feel safer at home than they do at work. According to 2004 NSC statistics however, twice as many workers were seriously injured while off the job than were injured while working.

With more than half of all accidental deaths occurring in homes and communities, the challenge is to protect the public from injuries off the job, not just those on the job.

Source: US National Safety Council, Media Release 1 June 2006, <http://www.nsc.org/news/nr060106.htm>

ILO Report – new forms of violence at work on the rise worldwide

The International Labor Organisation reports in a new publication that violence at work, ranging from bullying and mobbing, to threats by psychologically unstable co-workers, sexual harassment and homicide is increasing worldwide and has reached epidemic levels in some countries.

Additionally, the global cost of workplace violence is enormous and costs millions of dollars in losses due to causes including absenteeism and sick leave.

The findings are based on the study “Violence at Work” by Vittoria Di Martino, an international expert on stress and workplace violence and Duncan Chappell, past president of the New South Wales Mental Health Review, Australia and the Commonwealth Arbitral Tribunal, UK.

Introduction: A Catalyst for Action can be found online at <http://www.ilo.org/public/english/support/publ/pdf/violencechap1.pdf>.

Source: Violence at work, third edition, Duncan Chappell and Vittoria di Martino, ISBN 978-92-2-117948-1

Lightning – a major cause of death and injury

The incidence of deaths from lightning warranted a National Lightning Safety Awareness Week in late June in the USA.

Last year lightning was reported to have killed at least 48 people (the average is 66 annually) with hundreds of other injuries caused by lightning.

Dr Mary Anne Cooper, Professor of Emergency Medicine at the University of Illinois, commented that lightning survivors are often left with debilitating health effects such as permanent nerve damage or brain injury.

Knowing lightning is in the forecast and being prepared to react to the first sound of thunder are the initial key safety steps. Find further information online at www.lightningsafety.noaa.gov.

Source: News update, ohsonline, stevens publishing, 20 June 2006.

The MARCSTA General Safety Induction emphasises the risks associated with lightning.



Wellness programs pay dividends for participants

A study of a demonstration project led by Community Health Councils Inc in Los Angeles has shown how incorporating physical activity and healthy eating into an office or other organisational culture pays dividends for participants.

The study reported in the July edition of the peer-reviewed journal Health Promotion Practice has found that a six-week wellness training program significantly increased vigorous physical activity among participants.

A 12 week curriculum boosts fruit and vegetable intake while reducing feelings of sadness and depression, and can even reduce waistlines.

The goal is to increase life expectancy and improve quality of life, with the focus on cardiovascular disease and diabetes.

Source: Occupational health and safety, ohsonline, stevens publishing, media release, 14 July 2006

The Australian Institute of Health and Welfare reports that diabetes is one of the leading threats to the health of Australians and the rate of new cases is on the increase. Reference: Monitor, Vol 10, Issue 2, June 2006, P6, Wellness Programs

Safety training (MARCSTA)

As a Registered Training Organisation, MARCSTA has the following nationally accredited programs in place:

- **Work Safely (General Safety Induction).** Unit of Competency, MNMC5 (Metalliferous)
- **Conduct Local Risk Assessment.** Unit of Competency, MNMC205A (Metalliferous)
- **Apply Fatigue Management Strategies (Extended Working Hours and Your Health and Safety).** Unit of Competency, TDTF1097B (Transport and Distribution)
- **Follow Occupational Health and Safety Procedures.** Unit of Competency, TDTF197B (Transport and Distribution)
- **Safety Awareness Training Certificate (Construction).** National Code 51466

Applications for recognition of prior learning may be lodged for all programs.



Notes for the Shift Worker

WorkSafe WA Commission for Occupational Health and Safety (Code of Practice - Working Hours 2006)

The Code was issued recently attracting little media attention which was unfortunate.

A brief overview follows:

The code focuses, for the most part, on the joint responsibilities of employers and employees in relation to their respective general duties of care.

Employers are reminded of their obligation to provide employees with information, instruction, training and supervision to enable them to work in a safe manner. **Importantly, the code points out that unless this employer duty of care is met, employees will be unable to fulfill their duty of care to take reasonable care to ensure their own safety and health at work.**

Outlined in the code is a **risk management process** which should be undertaken by employers to ensure duty of care obligations to provide a safe workplace. **Employers are reminded that the Occupational Safety and Health Regulations contain a specific requirement to undertake a risk management process.**

Risk management guidelines for working hours are provided for use at the workplace which incorporate a general risk indicator for hazard factors.

These hazard factors are scaled as: Lower Risk – Increasing Level of Risk – Higher Risk

The higher risk factors incorporate most of the working hours parameters recommended by the Extended Working Hours Review Panel in early 2004.

A comprehensive range of potential control measures are provided under the following headings to assist employers and employees to meet their respective duties of care:

- working hours arrangements
- demands of the work tasks
- fatigue critical tasks
- extended exposure to hazards
- information and training
- supervision
- individual and lifestyle factors.

Compliance with the Working Hours Code of Practice will be a considerable challenge for all of the parties concerned and this includes the regulators who will be responsible to ensure that duty of care requirements of the OSH Act and Mines Safety and Inspection Act and their regulations are being met.

Fundamental to compliance will be the education and training of all concerned and the code reminds employers in its introduction of their obligation in this regard.

This early emphasis is reinforced under the potential control measure of ‘training’ with a reminder that both Acts and mining regulations require training on safe work procedures to be provided.

The following training measures are suggested: (p23/24)

- training **managers and supervisors** to:

- understand the unique demands of work schedules;
- recognise fatigue indicators;
- understand the safety and health hazards and risks arising from the working hours arrangements and their control measures; and
- prepare suitable work rosters.

- training **employees** on:

- hazards and risks that may be associated with the working hours arrangements and their control measures, for example, training on fatigue and its control measures including fatigue management skills such as alertness strategies and safe practices for work involving hazardous substances, manual handling and plant use;



- their relevant responsibilities for safety and health at the workplace;
- relevant health and lifestyle choices including, for example, beneficial sleep and health management and fatigue indicators;
- general job skills to promote understanding of the demands of the job;
- other relevant information such as policies on working hours fatigue management, drugs and alcohol and ‘fitness for work’; and
- providing further training to refresh understanding of fatigue, health management and the working hours control measures when new methods, tasks, equipment, hazards, operations, procedures or schedules are introduced or the environment changes.

The code provides a series of appendices on legislation and regulations which leave employers in little doubt about their responsibilities in relation to the provision of information, instruction and training and the provision of a safe and healthy working environment.

It will be interesting to see just how the regulatory authorities go about verifying the adoption of the code by the various industry sectors.

One suggestion could be to ask to inspect the register of training programs in place and the number of employees undergoing training, for without extensive education and training this code will gather dust on the shelf.

The Code is available from WorkSafe www.worksafe.wa.gov.au.

MARCSTA offers a nationally accredited one day program which is designed to enable all parties to meet their responsibilities highlighted in the Working Hours Code of Practice.

Sleeping disorders among mining workers

Dr David Hillman from the Sir Charles Gairdner Hospital commented on ABC Rural in July that he is treating a large number of shift workers suffering sleep disorders and that number is growing.

He stated that there are safety concerns which must be addressed by the mining industry and that the problem is a massive issue for the Pilbara.

Source: ABC Rural, 19 July 2006.

French study finds overtired drivers continue to drive

Studies have shown that sleepiness in drivers is an important factor contributing to traffic related injury and death. French researchers recently investigated whether drivers could recognise their own signs of fatigue and then take precautions to avoid drowsy driving crashes.

They examined data from more than 13,000 road crashes and interviewed participants about their driving habits and fatigue. Participants were asked to answer the question “in the past 12 months have you ever driven while sleepy?”

Participants who reported driving while sleepy a few times in the year were 1.5 times more likely to have been involved in a serious traffic accident compared with those who reported not driving while sleepy. Those who reported driving while tired once a month or more often were nearly three times more likely to have been involved in a traffic accident.

The researchers said that the results of the survey show that self assessed driving while sleep is a powerful predictor of serious road traffic accidents and suggests that drivers are aware that they are sleepy when driving but do not act accordingly.

Messages on prevention should therefore focus on convincing sleepy drivers to stop driving and sleep before resuming their journey.

Source: ohsonline, stevens publishing, media release 27 June 2006.

To view the full paper published by the British Medical Journal's Website go to <http://press.psprings.co.uk/bmj/sleepydrivers.pdf>.

Firm fined after worker's death crash

In the UK a potato firm was fined A\$75,000 for breaching health and safety legislation as a result of a worker dying in a car crash after working 76 hours in four days.

The deceased had worked 11 days without a day off prior to the crash and during that time had worked an average of 17 hours a day. He was getting three to four hours sleep a night and was suffering from chronic fatigue.

The judge said the company had failed to properly monitor the hours its employees were working.

Source: EADT24, UK, 30 June 2006, Media Release



Rotating shift work may raise heart disease risk

A new Japanese study suggests that people who work a mix of day and night shifts may face a greater risk of dying from heart disease than those who work fixed days or nights only.

The study also found that the effect of heart disease factors such as high blood pressure, obesity, excessive alcohol consumption and cigarette smoking was even greater for individuals who work rotating shifts.

Source: American Journal of Epidemiology, 15 July 2006.

The study found that men who worked rotating shifts were 60 percent more likely than those who worked day shifts to have diseases of the heart and they were 2.32 times more likely to die of heart disease.

The dietary habits of sleep deprived shift workers

Researchers at the University of Chicago have found that shift workers who experience sleep deprivation are more likely to base their caloric intake on snacks rather than meals.

Because snacks are usually of poorer nutritional value, daytime sleep may aggravate the consequences of the increased appetite due to sleep deprivation, the authors noted.

Problem sleeping among shift workers may have several consequences, including an increased risk of an automobile accident, a decreased quality of life, decreased productivity and an increased risk of accident and injury at work.

For more information contact the American Academy of Sleep Medicine online at www.aasmnet.org.

Source: ohsonline, stevens publishing, media release 27 June 2006.

Report to the American nation about sleep

The US Institute of Medicine has reported that sleep disorders and sleep deprivation are “an unmet public health problem” of major proportions.

In a landmark report the Institute has called on federal, academic and non-profit agencies to take up the mission of making healthy sleep a priority for all individuals in the USA.

The report states:

- 50-70 million Americans suffer from a chronic disorder of sleep and wakefulness, hindering daily functioning and adversely affecting sleep.
- Almost 20% of all serious car crashes in the general population are associated with driver sleepiness, independent of alcohol effects.
- As many as 98,000 deaths, due to medical errors, occur annually in US hospitals. Medical residents work longer hours (e.g. 30 hr shifts) than virtually all other occupational groups.

The report lists a range of less visible consequences and identifies how sleep problems have and, are continuing to, dramatically reduce the nation’s health and well-being.

Source: Sleep Foundation, Sleep Matters, 21 June 2006.

Crew fatigue caused train collision

The National Transportation Safety Board in the USA has found that fatigue caused the failure of the engineer and conductor to respond to wayside signals governing the movement of their train in 2004.

The subsequent collision with another train derailed four locomotives and 36 railcars.

A tank car loaded with liquefied chlorine was punctured, the chlorine vaporised and three people died from the effects of chlorine gas inhalation.

An investigation determined that sleep debt disrupted circadian processes during the weekend preceding the accident and long duty rosters reduced the capacity of the engineer and conductor to remain awake and alert.

Consumption of alcohol on the evening before the accident likely added to the fatigue.

Source: ohsonline, stevens publishing, Media Release, 11 July 2006



news and views

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

Mining Technology June 2006 contains a study by SN Glazer and N Hepworth of **crown pillar failure** when underground caving was used beneath the open pit mine at Palabora, South Africa.

Longwalls June 2006 is an information bonanza for all miners. Read about Scott Health and Safety's new **very low breathing resistance respirator**, the Fearless Tiger DBT MH-40 **underground diesel utility loader** with health and safety and mine air quality features, the use of a diagnostic and predictive **safety culture instrument** (OCDI) in NSW mines, CSIRO research in mine use of **ground-penetrating radar** to aid roadway stability, to **contract or not to contract**, the **Work Choices** legislation in mines, Marathon Tyres' **reusable rubber liner** system to fill the cavity of underground earthmover tyres, how **supplier middlemen** add value to Australian mining, Aggreko's **refrigeration solutions** in Bowen Basin mines, Minora's Locket Toospeedie **resin-torquing rockbolting** technology, a comparison of the very **different emergency responses** at the Beaconsfield and Sago (W.Va) mines this year, and **passive dust control** in materials handling.

South African Mining December 2005-January 2006 notes that Optimac offer a **Halolite cap lamp** with a life 80 times that of filament lamps, with a hi-tech battery one eighth the weight of a lead-acid one, needing only a quarter of the charging rack space. It also has an emergency LED light source lasting up to 195 hours. The boom has led to a spread on what to buy for that special woman including **perfume at \$89,000** per bottle, platinum dust nail polish, ruby-studded high heels at \$1.6m. and a gold and diamond mobile phone for \$28000. In it too Davitt McAleer discusses the inquiry findings on the Sago **coal mine disaster** last January in the US, after an explosion initiated by lightning killed 14 men, because it exceeded pressure limits for mineshaft seals.

In *Canadian Mining Journal* April 2006 Jane Werniuk describes successful **firefighting** at the world's largest potash mine in southeast Saskatchewan. 72 people were trapped and all were rescued. It also notes that Australian-based mineral research broker AMIRA has set up in Toronto.

CIM Magazine June-July 2006 remarks on Motion Metrics Inc.'s ToothMetrics monitors for **shovel bucket teeth**. Undetected broken teeth can cause great trouble in the downstream process. Also Nural Kuyucak elaborates on **passive mine wastewater treatment** which can save on pumps and power.

Australian Journal of Mining July 2006 has articles on the **resurgence of uranium**, the preferred desalinated seawater option for mine expansion at Olympic Dam, and Terry Lee's call for **mineral resource reporting** to the revised Canadian standards.

Darren Flanagan may not have gone about his part in the Beaconsfield mine rescue quite like Jimmy Dean's Big John, but *AusIMM Bulletin* for July-August 2006 illustrates his key role using RockCracker **penetrating cone fracture explosive** in the final rescue stage. In it too, Michael Bruce and Wayne Miller comment on the Sweeney v Boylan High Court decision on a **principal's vicarious liability** for a subcontractor's negligence. There is also an obituary on Jim Torlach.

conferences and courses

First International Seminar on Mine Closure, Perth 13-15 September 2006. Email: acg@acg.uwa.edu.au

International Mine Management 2006, Melbourne 16-18 October. Email: conference@ausimm.com.au Fax: 03 9662 3662

Goldfields Mining Expo, Kalgoorlie 24-26 October. Email: coordinator@kalgoorliecci.asn.au

Ground Support in Open Pit and Underground Mines, Perth 31 October - 3 November 2006. Email: acg@acg.uwa.edu.au

Water in Mining, Brisbane, 14-16 November 2006. Email: conference@ausimm.com.au



Who's who?

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Arlene Roe

Kim Stewart

MARCSTA Monitor Editor

Geoff Taylor

Training provider *Kate Montague*



Kate started in the mining industry at Marvel Loch, when she was 21 and has worked 14 years in the mining industry.

After working for a year as a qualified chef she realised the job was poorly paid and stressful, and decided to broaden her horizons. After a spell as a haul truck operator, she then progressed to other machinery.

After being involved in a significant near miss, and witnessing

machine rollovers she took up health and safety by being elected as a health and safety representative, auditing OHSMS systems, among other things.

She then met her partner in life who is also involved in the mining industry and traveled throughout Western Australia and Queensland to various mine sites. The standard rosters of the time were 13/1, 8/1, 6/1 with very few, if any, site inductions, poor accommodation and facilities. The industry has certainly changed in its focus from when she first started, she notes.

Kate was in emergency response for seven years at Boddington and Plutonic (surface and underground) and was a qualified trainer and assessor for plant operation for eight years, followed by two years with

surface explosives in the gold sector.

Herniated discs three years ago due to not following correct procedures and complacency led to three back operations with two years out of the workforce.

Kate had attended many manual handling courses, and was aware of the correct lifting techniques however she chose to ignore them, thinking that it only happened to other people.

As she was not physically able to go back into the industry, one of the reasons she trains people is to make them aware of hazards and complacency, and to always ask the question: "Is it safe"?

Kate is currently completing a Diploma of Occupational Health and Safety. She trains at Aveling, Total Corrosion Control and Murray House Resource Centre Pinjarra.

new publications

DOCEP WorkSafe:

- *Code of Practice - Hours of Work*
- *Code of Practice - Violence, Aggression and Bullying*

DOCEP Resources Safety:

- *Guideline - Refuge Chambers in Underground Metalliferous Mines.*
- *Poster - Reporting an Accident or Incident.*

Habashi, F. *Readings in Historical Metallurgy*. Quebec, Metallurgie Extractive Quebec. Order. www.zone.ul.ca.
Fraser Institute Survey of Mining Companies 2005/6. See FraserInstitute.ca/admin/books/files/Mining20052006.pdf
Pyper, R. *Meekatharra: A Journey from Gold Dust to Bulldust*. Perth, Seaview Press. Order: www.seaviewpress.com.au

A reminder about Mirmgate, www.mirmgate.com. The site is run by the Minerals Industry Safety and Health Centre (MISHC) at the University of Queensland, under the direction of Professor Jim Joy and is a searchable metadatabase which will direct you to the source pages of relevant material.



MARCSTA licensed training providers

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All training providers listed above provide general inductions.
U denotes the underground program.
S denotes the extended working hours program.

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