



NSW mine safety update

Promoting safety in the NSW mining industry

Ian Macdonald MLC,
Minister for Natural Resources,
Primary Industries and
Mineral Resources.



Cabinet reshuffle – Ian Macdonald new Minister for Mineral Resources

Following the appointment of Mr Morris Iemma as NSW Premier, Mr Ian Macdonald MLC was sworn in as the New Minister for Mineral Resources in August.

Mr Macdonald said he was honoured to take on responsibility for minerals and natural resources, in addition to agriculture, fisheries, forestry and food regulation.

"As one of the largest users of natural resources, our farmers, fishers, miners and foresters are important stewards of our land and our waterways," Mr Macdonald said.

"I'm looking forward to working on practical measures that ensure the sustainability of our natural resources, so they can support our primary industries today and for future generations," Mr Macdonald said.

OHS – Mining Industry OHS Conference 2005 reveals 'always something new to learn'

The annual NSW Mining Industry Occupational OHS Conference 2005 proved that even people who have been mining for many years can learn more about OHS within the industry. Presentations from the petroleum industry, the construction industry and from forerunners in the mining industry gave clues as to what lies ahead for the NSW mining industry with respect to workplace health and safety.

The Conference, which was held from 15 May to 19 May 2005, featured over 35 sessions for the 400 plus delegates to choose. The sessions, which covered areas including research & development, regulatory development, health, culture, risk and behaviour, ensured there was something for everyone who attended.

The opening address by Kerry Hickey, the former Minister for Mineral Resources, highlighted the NSW Government's commitment to addressing workplace safety for all individuals on mine sites. The Minister emphasised that he would not accept a lower standard of safety for contractors than for the workforce at large.

Also on the first day of the conference, Ms Maxine McKew facilitated a panel discussion, which proved thought provoking and informative for both the audience and the panel. The topic discussed was 'the role of penalties in improving mine safety'. Panel members including representatives from industry, unions and government, took the opportunity to voice some long held beliefs and comments on the way ahead.

"The NSW Government remains resolutely committed to better safeguarding the health and wellbeing of our State's mine workers. The NSW mining industry enjoys one of the best safety records in the world, but we can and must achieve zero fatalities. I look forward to working with industry and stakeholders to ensure we achieve this."

Mr Macdonald said he would continue to build on an era of positive change and the many initiatives introduced by the former Minister for Mineral Resources, Mr Kerry Hickey. Mr Hickey reintroduced the Mine Health and Safety Act to Parliament which brought metalliferous and extractive industries in line with the *Occupational Health and Safety Act 2000* and the *Coal Mine Health and Safety Act 2002*.

Mr Hickey also established the Mine Safety Review, headed by Neville Wran to recommend further improvements to mine safety.



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Editors please note: any articles in this issue of NSW Mine Safety Update can be reproduced with suitable acknowledgement of their source.

Information provided in this newsletter to promote the enhancement of the safety culture of NSW mining and to alert a wide range of people to potential risks and to potential risk controls. Each site must manage its own risk according to its own hazard identification, risk assessment, control systems and monitoring process. Whereas all care is taken in producing NSW Mine Safety Update, NSW Department of Primary Industries accepts no responsibility for accuracy of information supplied. Inclusion of any product, service or company in NSW Mine Safety Update does not imply NSW Government or NSW Department of Primary Industries endorsement.



The mine workers of Stanford Merthyr Colliery.

Ceremony to commemorate the centenary of the Stanford Merthyr disaster 1905

On Saturday 29 October 2005 a ceremony will be held to commemorate the centenary of a tragic accident at the Stanford Merthyr Colliery, located near Kurri Kurri in the Hunter Valley. On Sunday 29 October 1905, an explosion and fire killed six and badly injured nine mine workers. With a total of 476 workers employed by the mine, if the accident had occurred during a normal working day the number of killed and injured would have undoubtedly been much higher.

The investigation was a lengthy process which included a person being arrested on suspicion of deliberately causing the fire. The suspect was later released without charge due to lack of evidence. It was suggested that the mine company was desperate to find a scapegoat for the cause of the fire.

A.A Atkinson, the Chief Inspector of Mines at the time of the tragedy, made a number of recommendations in his report on the disaster including a recommendation regarding the use of naked lights (flames) in the mine. However, the Chief Inspector ultimately determined that there were no grounds for prosecution.

The centenary service is being organised by the Retired Mine Workers Association (NSW Northern District) with assistance from the Mineworkers Trust.

For more information on the service contact Merv Mahon on ph: 4954 9610.

Would you like to receive Safety Alerts by email?

Send your details including name, company, phone and email to:
safetyalert@dpi.nsw.gov.au

Case Study of Thickener and Storage Tank Construction

CSA Mine is an underground copper mine operated by Cobar Management Pty Ltd (CMPL) in central western NSW. In June 2005, the mine completed the construction of a multi-million dollar Concentrate Thickener at its ore processing facility. This new facility was to replace the original thickener installed when the mine opened in the mid 1960's, which had reached the end of its useful life. The construction also reflected the needs of a mine with a remaining life now expected to exceed 10 years, with a recent upgrade in resources to over 7.5 million tonnes at an in-situ grade in excess of 6.5% Cu.

The construction project was completed with the rewarding achievement of nil lost time from injury or safety incidents.

The project encompassed an effective management system for the design and construction on the site. CMPL staff and contractors working on the site created a controlled work environment by ensuring only competent people worked on the site, equipment was fit for purpose and safe work practices were implemented. There were up to 12 workers on site, a combination of contractors and personnel from the mine and processing facility.

Although the construction project involved many stages, there were some important safety measures which the mine identified as contributing to the success of the project.

These included:

- Contractors provided Safety Management Plans which were reviewed by CMPL personnel;
- Inspected premises of major contractors and reference checked before they got to site;
- Demarcated "Construction Site" with fencing and signage;
- Sign On Book to enter site;
- Morning meetings to review Risk Assessments and Job Safety Analysis (JSA's) and other safety issues;
- Constant vigilance by the mines Project Coordinator, Project Manager and General Manager;
- Safety Audits and Checks (Outokumpu and CMPL) during the course of the project;
- Draft Operating Manual and Assessment available prior to commissioning;
- Manual and Assessment reviewed during commissioning;
- Manual and Assessment finalised after commissioning; and
- 'Hands On' training provided by contractor Outokumpu and CMPL during commissioning.



The project commenced in November 2004 and was commissioned in early June 2005. Beside the excellent safety standards, the project was delivered on time and on budget.

CSA Mine mines over 600,000 tonnes of copper ore and produces in excess of 130,000 tonnes of copper concentrate per annum. This concentrate is exported to customers in India, China and South East Asia.

For more information on CSA Mine visit their website at www.cmpl.com.au

Mine Safety Review 2004 (2005)

Thirty-one recommendations arose from the Mine Safety Review 2004 (2005) convened by The Hon Neville Wran AC QC, and assisted by Ms Jan McClelland and a panel of three experts. The Minister for Mineral Resources, who announced the review, found that there was a need for a more cooperative approach between industry, unions and government to achieve the safest possible mining culture.

The Minister is now considering these recommendations. The review was commissioned to provide a fresh, independent and innovative perspective on mine safety for the State and with the aim of achieving zero fatalities. The review was finalised in March 2005 and submitted to the Minister. The review was publicly released on 10 April 2005. Copies of the final report are available from the NSW DPI Minerals website on www.minerals.nsw.gov.au

The 15th Annual Electrical Engineers Safety Seminar

The seminar "In Control of Electrical Engineering Safety," will be held at Penrith Panthers, Mulgoa Rd, Penrith on November 9 and 10.

For more information contact John Waudby on 02 4931 6641 or 0418 295 656

Two big safety milestones at the opal fields

Safety Awareness Course for opal miners reaches 5000th attendee

The Mine Safety Awareness Course conducted by the Department of Primary Industries in Lightning Ridge and White Cliffs Opal Fields has reached a milestone with the attendance of the 5000th participant.

Sandra Cree has become the 5000th person to attend the course in Lightning Ridge.

Originally from Melbourne, Sandra and her husband, who also did the course, have been living in Lightning Ridge for the past 25 years.



From left to right: Peter Bell, the president of the GGSMA (Glengarry, Grawin and Sheeppark Miners Association), Sandra Cree, David Howell, Bruce Kremmer and Bill Barraclough. Bill presented a plaque and certificate to Sandra.

"I found the course to be very detailed and informative and I thoroughly enjoyed it," Mrs Cree said.

A claim cannot be registered or renewed by anyone who has not completed the course, even those who have been mining for many years.

According to the Deputy Director-General of the Department of Primary Industries – Minerals, Alan Coutts, these courses are widely credited with the dramatic improvement in safety on the opal fields.

"Not one opal mining fatality has been recorded in the last eight years, compared with one a year for the preceding 10 years," said Mr Coutts.

"This important improvement can be largely attributed to the DPI's Opal Mine Safety Awareness Courses and is testimony to the State Government's commitment to ensuring the safety of our miners."

The Safety Awareness Course has been running for 13 years and has been a great success for the Department and an untold benefit to the industry.

The course is regularly held at Lightning Ridge and is also held at White Cliffs and Coober Pedy from time to time. The last fatality on the opal fields was over eight years ago.

The Department would like to thank all the people who have tirelessly put in time and effort to make sure the course has been a success. In particular, a big thank you to David Howell, Mine Safety Officer Lightning Ridge, as well as Bruce Kremmer, a former Senior Inspector of Mines with the Department and one of the founders of the course and Electrical Contractor, Wolfgang Johansson, who has been presenting the electrical unit of the course since its inception. Over the past 13 years, Bruce has only missed one course! Amazing.

Top work gentlemen!

1000th attendee

There was another recent achievement at Lightning Ridge when Mr Trevor Smeaton became the 1000th Mine Operator Workshop attendee. Trevor had recently arrived from Melbourne although had lived at Lightning Ridge previously for about 18 months in 2002 when he completed the Safety Awareness Course. Trevor said the course changed his thinking and that he had found heaps of information to be useful. Trevor received a special course certificate which included the words '1000th Course Attendee'. Good luck Trevor!

The Mine Operators' Workshops have been running for two years from Lightning Ridge. If you are in the opal mining industry or thinking of becoming involved in the industry, you are encouraged to attend the above courses.



Trevor Smeaton receiving a certificate for being the 1000th mine operator workshop attendee.

For more information visit the Department's web site on www.minerals.nsw.gov.au/safety/upcoming_events or phone the Lightning ridge DPI Minerals office on **02 68290678**.

During the period 1980 to 1990 there were ten fatalities at Lightning Ridge. This represented 25% of non coal fatalities in NSW. The fatality rate has steadily declined where now there has not been a death in the opal fields of Lightning Ridge since 1997.

Check Inspectors Conference

Safety in the mining industry was at the forefront of the Local Check Inspectors Conference held at Penrith Panthers Leagues Club, Mulgoa Rd, Penrith on Wednesday 17 August attended by interested industry stakeholders.

Local Member for Penrith, Mrs Karyn Paluzzano MP, delivered the opening address on behalf of the Minister to local check inspectors, representatives of the Construction, Forestry, Mining and Energy Union (CFMEU) and policy officials.

Noel Parish of SP Solutions facilitated the conference. Among many interesting safety aspects, Noel emphasised the need to adhere to legislation and site requirements, identify hazards and unacceptable risk and implementation of risk controls and development of a Safe Work Procedure (SWP) from a Job Safety Analysis (JSA).

With over 20 years experience in mining and training industries, Noel's prior roles included working as CEO for the NSW and National Mining Industry Training Advisory Boards. More recently, Noel has worked on Line Supervisor Training, Hazard Awareness and JSA (Job Safety Analysis).

The key objective of the conference was to provide support for organisations to achieve "best practice" in integrated Risk Management Systems covering Business, HSE (Health, Safety and Environment) and Quality processes.

Some of the topics covered included:

- Identify risk management principles in the context of legislative and site requirements,
- Identify hazards by considering energy sources,
- Assess risk and identify unacceptable risk,
- Identify, analyse and implement risk treatments,
- Understand the process of developing a safe work procedure from a completed JSA.

The course was designed to meet all of the performance criteria of the Coal Industry Competency Standard MNMC205A – Conduct Local Risk Assessment.



Attending the conference were from left to right; Eddie Morgan, District Inspector of Coal Mines in Lithgow, Paul Irwin, Local Check Inspector for Springvale and Trevor Schram, District Check Inspector.



Ginkgo mineral sands project in the Murray Basin. The mine will commence production in late 2005.

Special safety considerations for the new Bemax Resources Mine at Ginkgo

The Ginkgo mineral sands deposit, first discovered in November 1998, is owned by Bemax Resources NL which is now developing the site. The mineral sands deposit is located in far south west NSW, 120 km NE of Mildura and 35 km W of Pooncarie. A permanent camp has been constructed on site to accommodate 76 people which when combined with the construction camp has the capacity to accommodate up to 140 people. Once construction is finalised, the operational workforce will number approximately 70 persons with shift workers being on a work roster of 5 days/nights on and 5 days/nights off.

Due to the mine's location, special considerations had to be made to ensure that all health and safety concerns were addressed. In particular, a first aid building has been constructed on site which has a full-time nurse in attendance or on-call. In addition, a new airstrip has been established close to the mine-site at Manilla station and is constructed to Royal Flying Doctor Service specifications for a dry weather strip.

These additional facilities, combined with the implementation of proper OHS programs, will ensure that working at a remote mine site need not be an increased risk to the health and safety of the workforce, and that any risk associated with working at a remote mine-site is minimised.

The current pit dimensions are now approximately 400m x 320m and 40m deep. During mining this pit will advance approximately 14 kms. The pit floor has been sheeted with a limestone base to provide a solid work surface for the assembly of the dredge and floating plant. The assembly of the dredge and floating plant commenced early in July 05.

For more information visit Bemax Resources NL website on <http://www.bemax.com.au>

The OHS Innovation Awards for the NSW mining industry 2005

NSW DPI would like to congratulate the entrants to the OHS Innovation Awards for 2005.

The initiative and enthusiasm shown by entrants to the awards demonstrates why NSW is a leader in modern day OHS in the mining industry. The 2005 innovations included both highly technical developments and simple solutions to common problems. The Awards program provided a perfect opportunity for individuals and companies to showcase techniques, equipment, training or procedures which could save lives while gaining valuable feedback from those working within the mining industry and within supporting industries. The entries to the 2005 awards were of an exceptional standard. Rob Regan, Chief Inspector of Mines and judge on the innovation awards panel, said that he was very impressed by the sheer number of innovations that were evidently being developed at NSW mines sites over the 12 month period. "It demonstrated the state mining industries 'can do' approach to implementing safety in the workplace", Mr Regan said.

In particular, DPI would like to congratulate winners of the awards who included:

The 'Gold Award'



The Stored Energy Assassin. Mr David Stark, Mr Myles Huntley and Mr Bob Peake of Coal & Allied. Grease pressure release gun ('Stored Energy Assassin') measures and can reduce the level of stored energy in pressurized grease lubrication chambers. Two recent safety alerts issued by NSW DPI highlight the need for a device such as the Stored Energy Assassin, see SA04-14 'Loss of eye from injection of grease' and SA04-26 'Near miss fluid injection'. Most importantly the Stored Energy Assassin has recently been released to the market, check out the web site at <http://www.custom.com.au/innovations> or contact **Custom Fluidpower Newcastle, 11 Nelson Rd, Cardiff NSW 2285, T: (02) 4953 5777, F: (02) 4954 4122.**



Myles Huntley of Coal & Allied. Myles designed the Grease Pressure Release Gun.

Silver (people's choice)

Safe removal of Dragline Rope Socket Wedges – The Boomer. Mr Paul Scott and Mr Paul Green of Xstrata Coal. This very impressive entry involved the safe removal of dragline rope socket wedges by a single operator in the safety of his mobile crane cab. The system involves a 'boomer' being released via a remote trigger to strike the dragline rope socket wedge. The system can be activated with all workers well away from the moving parts. The delegates at the OHS Conference awarded The Boomer the 'people choice' awards. Well done!

Highly commended

Mr Darren Pisters from Mt Owen Mine. Low wall management system which predicts the risk of failure of a low wall in an open cut mine.

Commended

Mr Paul Gill from Xstrata Coal, Mr Noel Harden from BHP Billiton. Improved hydraulic operator cabin for underground load haul dump (LHD) vehicles: modifications to the cab of these vehicles so that the operator has more work area, improved visibility and a number of restraint and protection devices to improve the safety outcomes if the vehicle moves to a position of instability.



Workplace deaths amendment to the NSW OHS Act

On 15 June 2005, provisions of the *Occupational Health and Safety Amendment (Workplace Deaths) Act 2005* were commenced.

These provisions relating to workplace deaths form a new Part 2A of the *Occupational Health and Safety Act 2000* (the OHS Act). They make it an offence for a person who owes a duty of care under that Act to engage in reckless conduct that causes death at a workplace. These provisions apply to all NSW workplaces including mines.

Those to whom the workplace death provisions may apply to employers, controllers of work premises, directors and managers, employees and people hindering the aid of injured workers.

For further information on the recent amendments to the OHS Act, visit the NSW DPI Minerals website at www.minerals.nsw.gov.au/legislation/updates or WorkCover's website at <http://www.workcover.nsw.gov.au/workplace+death.htm>.

Submissions closed on 19 August 2005. Workcover NSW will be reviewing Public comments, with a report to be tabled in Parliament.

Contact www.workcover.nsw.gov.au or call 131050 for further information



Rod Morrison Director Mine Safety Performance with Pu Hongjiu, Executive Vice President China National Coal Association speaking with interpreter Liu Jia of the China National Coal Association.

United for Mine Safety as Australia – China Coal Summit Opens in NSW

The former Minister for Mineral Resources, Kerry Hickey, officially opened the NSW component of the Australia-China Coal Summit and welcomed the Chinese delegation to the Summit.

Mr Hickey reinforced the need to make mine safety a priority and move towards zero fatalities.

The Australia-China Coal Summit commenced with a government and industry roundtable which aimed to enhance the collaborative relationship between Australia and China and to further facilitate information exchange and joint projects. The program also included mine site tours.

As a key player in future resource and energy developments, China recognises Australia's expertise in mining technology services, coal gas management, education and training and coal mine safety.

Mr Hickey said safety was a priority in coal and mining industries.

"NSW is a world leader in developing and implementing sound mine safety regulations and practices," Mr Hickey said.

Both China, the world's largest coal producer and Australia, the leading exporter of coal, "understand the importance of improving environmental management of coal mining operations," he said.

Chinese coal production in 2004 was around 1.9 billion tonnes. This compares with Australia, which produced close to 352 million tonnes in 2004.

It is envisaged the Australian and Chinese government and industry will work together to deliver high quality services and equipment to meet the needs and demands of our respective coal industries.



To request a free copy of these posters for your worksite contact WorkCover on 02 4321 5330

OCCUPATIONAL HEALTH & SAFETY

Dangerous Goods legislation soon to be replaced

As we go to press WorkCover is finalising new legislation for explosives and dangerous goods. Explosives are dealt with under the Explosives Act 2003 and supporting regulation. This legislation will put in place a 'chain of control' licencing regime for explosives along with more stringent security checks on people handling, or using explosives. There will be more stringent controls placed on what is called 'Security Sensitive Ammonium Nitrate' which is treated as an explosive precursor. This is in line with the agreed, National approach to the control of ammonium nitrate.

Provisions for dangerous goods, other than explosives, will move to within the Occupational Health and Safety

Regulation 2001. This will put in place the National Model Framework for regulation of dangerous goods. The changes will result in the repeal of the Dangerous Goods Act 1975 and the Dangerous Goods (General) Regulation 1999.

Both the new explosives requirements and the dangerous goods requirements are expected to commence at the same time. They will both apply to mines. It is expected that the new legislation will be predominantly administered by DPI in mines with WorkCover retaining licencing and some other functions.

Watch the Workcover and DPI Minerals websites for more information on the new legislation for explosives and dangerous goods www.minerals.nsw.gov.au or www.workcover.nsw.gov.au

Are you interested in a 'Shotfirer's Certificate of Competency'?



Preparing to load a shot.

Are you looking for training in the use of explosives to carry out blasting in any mine? Do you want to attain the level of 'Shotfirer's Certificate of Competency'? The NSW DPI Minerals Division requires applicants to have completed and passed a course of instruction in the use of explosives conducted by TAFE NSW or an equivalent approved course. TAFE NSW Courses are also designed for people to gain the WorkCover Explosives User Permit. (See article this page "Dangerous Goods legislation soon to be replaced")

The TAFE NSW typical courses cover topics including:

- Responsible management of explosives
- Initiation System
- Explosives – Surface
- Explosives – Rural Applications

The TAFE NSW courses are available at various locations across the State. For more information on the TAFE NSW Course visit www.tafensw.edu.au.

Issue of a certificate/permit may be subject to the department/authority conducting further practical and/or written assessment. To attain a Shotfirer's Certificate of Competency, applicants must also have satisfactorily completed a suitability check with the NSW Police Department.

For more information on the DPI Mineral Resources requirements for shotfirer's visit the Department's website on www.minerals.nsw.gov.au/safety/authorizations and follow the prompts to permits and certificates.

SAFETY ALERTS

Sa05-03 Driller's off-sider Injured while operating an exploration drill rig

The rod clamps on an exploration drill rig closed down onto the foot of a driller's off-sider. Fortunately the off-sider did not sustain serious injuries as he was wearing steel capped boots.

All exploration drill rig owners and operators should review the systems used for guarding rod clamps on their drill rigs and if necessary, replace guards to ensure pinch point protection is adequate.



Remember to replace guards to ensure pinch point protection is adequate.

Sa05-04 Injury to excavator operator

An excavator operator sustained serious lacerations to his lower leg when the end of a 6m X 300mm timber pole entered the cabin of his machine. The investigation found that among other things at the event consisted of a change from normal work practises that had been established for the removal of nuisance timber in the overburden.

SA05-05 Drill rigs and serious injuries

A total of 747 injuries involving roof and rib bolting were recorded by Coal Mines Insurance NSW for 1999 to 2004 inclusive. In excess of 250 of these involved machine mounted bolting rigs.

Minimise the reliance on safe systems of work by giving preference to engineering solutions. Provide adequate protection from roof and rib falls for drill rig operators by applying temporary supports or other safeguards prior to commencement of drilling.

SA05-06 Serious electric shock incident

An electrical service engineer was rendered unconscious when he received multiple electric shocks and suffered burns to the head, right arm and left hand. The investigation found that among other things, unfortunately the victim chose to open the enclosure and to work in proximity to the energised conductors without isolating the power supply. Mines should review work practices and ensure work is not undertaken in close proximity to exposed energised electrical conductors and should review contractor management and ensure that documented scopes of work and appropriate supervision are provided.

SA05-07 Failure of flameproof enclosure – thread repairs

The Department of Primary Industries (DPI) was notified that a number of thread repairs on a flameproof motor had failed. Underground coal mines and flameproof overhaul workshops that undertake repairs to flameproof apparatus should review the full technical report that is available on the DPI web site. <http://www.minerals.nsw.gov.au>

SA05-08 Danger of Methane Explosion from Diesel Engine Systems

A diesel engine system (DES) was inadvertently driven into a methane rich environment (8% recorded). The diesel engine reeved high, was uncontrollable and the operator was unable to shut the diesel engine down. This event had a significant potential to initiate a major gas explosion.

All underground coal mines should carry out a risk assessment to identify the risk of methane intrushes prior to the use of a diesel engine system in significant risk areas of the mine such as all return headings and adjacent to longwall goaf areas. Develop a system to manually shutdown all diesel engine systems in an emergency. Install an approved engineered permanent emergency shutdown system on all diesel engine systems.

SA05-09 Tyre Safety

The worldwide shortage of earth moving tyres is causing mining companies to review operating practices and to seek alternative methods of preserving tyre life. Where operating practices have changed, appropriate risk management, consultation, and training of employees must be implemented.



Maintaining and preserving tyres to help save lives.

SA05-10 Truck accident at quarry - fatality

A driver died as a result of injuries at a quarry when the truck he was driving failed to negotiate a corner and rolled down an embankment.

As a truck was descending a haulroad it failed to negotiate a corner and drove over the edge of an embankment eventually coming to rest some 20m below. All mines should immediately review their haulroad operations and ensure the correct safety systems and procedures are in place.

SA05-11 Electric shock from bus tie

A contract electrician received a serious electric shock and burns when live 11 kV bushings in the rear of a bus tie circuit breaker cubicle was contacted. Before high voltage work is undertaken a properly conducted formal risk assessment must be carried out to examine any possibility of people coming into contact with energised conductors.

ENGINEERING

Safe Design, Installation, Operation and Maintenance of a Vehicle Loading Crane

The need to ensure the safety of the operator when operating a Vehicle Loading Crane (VLC) came to the fore after three fatalities internationally involving VLCs in the past couple of years.

Operator entrapment resulting in severe crush injuries was the prime issue on each occasion.

Following incident reviews at Blackwater QLD, Rossing Uranium Namibia and a mine in the Hunter Valley, the need to understand state and national legislative compliance as well as the application of Australian Standards involving VLCs has never been more apparent.

The NSW Department of Primary Industries (DPI) is currently investigating best practices.

"The whole of life cycle strategy should be adopted for your VLCs", said DPI Senior Mechanical Engineer Gordon Jervis.

It's important to understand Clause 9 CMRA (General Regs) 1999 and the Design, Installation, Commissioning, Operation, Maintenance and Decommissioning of VLCs. Also, the application of the OH & S Act clause 7 Risks Arising from Activities at Work and clause 8 Duties of Employers.

Competent people, fit for purpose equipment, and appropriate Safety Management systems are an essential ingredient to minimise incidents.

Incorporating best practice from industry leaders and NSW WorkCover, a series of industry best practice rollouts conducted by including workshops, updated DPI website and site audits are forthcoming.

The latest Australian Standards - AS1418 part 11 and 2550 part 11 should be followed. Key issues include Planning; Selection; Siting; Operation; Maintenance Inspection and Repair; Limiting and indicating devices; Design requirements and verification; Manuals and marking.

The VLC operator should complete a Risk Assessment for all lifts which identified specific hazards and appropriate controls. The lift area should be demarcated and barricaded (hard barrier) to ensure there was no unauthorised entry to the lift area during operation.

Remote control operators should never enter the demarcated lift area. No person should work below an active crane jib - it's a No Go Zone.

The No Go Zone is the entrapment area of the work zone. This area should be hard barrier barricaded.

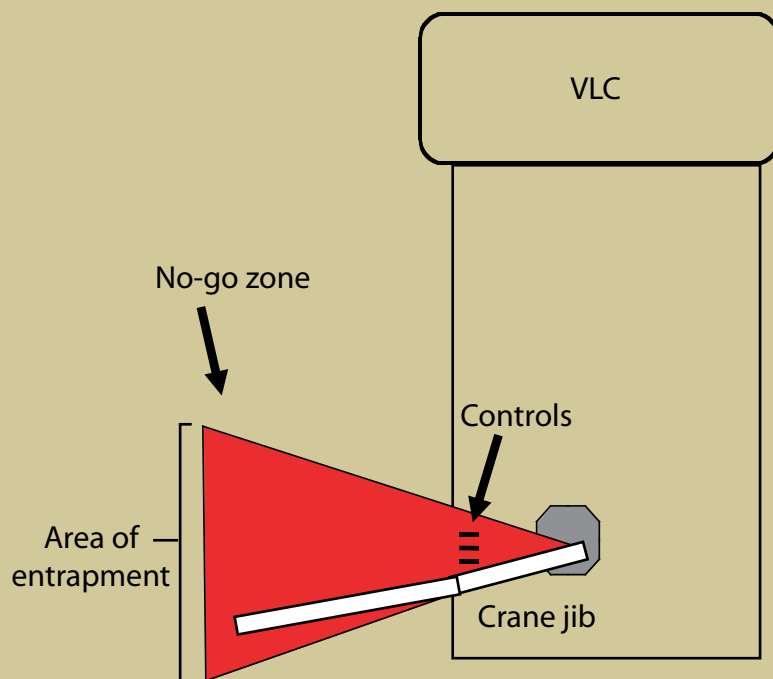
When lifting over the control station, a system of hydraulic or electric stops must be fitted to prevent slewing the crane jib, or the load over the "active control station".

Inspections must be carried out with sufficient frequency to ensure safe operation of the VLC. These should include routine inspections and maintenance, periodic inspections and a major inspection.

Maintenance should be carried out by a competent tradesman.

For further information contact Gordon Jervis, Snr Insp of Mechanical Engineering Ph: 02 4931 6642

Remember - never work under a VLC jib, load or enter an area of entrapment.



Reporting of visible evidence of arcing on a cable in a coal mine hazardous zone

Electrical arcing is a forerunner to a dangerous incident. It's a potential source of igniting methane with cables. Cables used in hazardous zones in underground coal mines are subject to harsh operating conditions and are a potential source of incendiary arcing due to damage or electrical faults.

Visible evidence of arcing, such as globules of molten conductor and carbonised tracking may be present even if a person did not visually detect the arcing. To adequately determine if there has been visible arcing on a cable, a proper investigation of every cable fault or damage needs to be conducted. If that investigation reveals evidence of arcing then the matter has to be reported in accordance with clause 34B(1)(a).

Clause 34B(1)(a) Coal Mines (Underground) Regulation 1999 recognises the potential dangers and requires evidence of cable arcing on a cable in a hazardous zone to be reported to the District Inspector and District Check inspector within 24 hours of the mine manager becoming aware of the occurrence.

A form was developed by the Coal Safety Advisory Committee for the reporting of cable arcing. This form has been specified, pursuant to clause 34(B) (2) Coal Mines (Underground) Regulation 1999. This matter was gazetted on the 27 September 2004 and came into force on the 1st November 2004. Underground coal mines are reminded to use the form when making notification. The form is available from the department's website at www.minerals.nsw.gov.au/safety/Electrical_Engineering/incidents_and_statistics

Electrical arcing indicated by melt and copper caused by a damaged cable.



Erin Mate at Breathing Apparatus at the New Mine Safety Technology Centre in Thornton.

New Technology Centre Improves Mine Safety

The new **Mine Safety Technology Centre** is now up and running. The centre provides scientific testing and analytical services to the NSW mining industry. The centre works closely with the mining industry; mines inspectors and the Investigations Unit, to improve safety in the mining industry. The centre is part of the Department of Primary Industries, Mineral Resources Division, and is located at Thornton in the Hunter Valley.

The new centre is the only one of its type in NSW and replaces the old technology centre at Lidcombe. It offers many new services including electrical testing, investigations into the intrinsic safety of equipment, and the testing for toxicity of combustion by-products for items intended to be used in underground mines.

The centre is staffed and equipped to provide state-of-the-art services for the mining industry, specialising in gas analysis; analytical services; occupational hygiene; equipment compliance certification and evaluation of electrical safety in underground mines.

Other functions carried out at the centre include: Calibration of instruments, gas blending devices, and flow controllers; dust analysis, gas analysis; mobile gas laboratories for exhaust emission testing and mine fire gas monitoring; noise and illumination surveys; breathing apparatus and materials testing; and performance evaluation of gas monitors.

The new facility provides the opportunity to hold technical training seminars on issues facing the mining industry with ready access to expert scientists and engineers within the Department.

The Centre is the only facility in Australia for a large number of the NATA accredited testing services. The new laboratories have the capacity to process many thousands of samples per year and will employ up to twenty staff.

To access the services at very competitive rates, contact:

**The Mine Safety Technology Centre,
PO Box 343, Hunter Regional Mail Centre, NSW 2310.
Phone (02) 4924 4000, or Fax (02) 4924 4080**

List of NSW DPI — Mineral Resources Offices

MAITLAND

NSW Department of Primary Industries
Mineral Resources
516 High Street, Maitland NSW 2320
(PO Box 344, Hunter Region MC NSW 2310)
Phone: (02) 4931 6666, Fax: (02) 4931 6790

ARMIDALE

NSW Department of Primary Industries,
Earth Sciences Building (C2)
University of New England, Armidale NSW 2350
Phone: (02) 6738 8500, Fax: (02) 6772 8664

BROKEN HILL

Level 2, 32 Sulphide Street,
Broken Hill NSW 2880
(NOTE CHANGED PO BOX NUMBER)
(PO Box 696 Broken Hill NSW 2880)
Phone: (08) 8088 9300, Fax: (08) 8087 8005

COBAR

62–64 Marshall Street, Cobar NSW 2835
(PO Box 157 Cobar NSW 2835)
Phone: (02) 6836 4392, Fax: (02) 6836 4395

LIGHTNING RIDGE

Lot 60 Morilla Street, Lightning Ridge NSW 2834
(PO Box 314 Lightning Ridge NSW 2834)
Phone: (02) 6829 0678, Fax: (02) 6829 0825

LITHGOW

The Hartley Building
184 Mort Street, Lithgow NSW 2790
(PO Box 69 Lithgow NSW 2790)
Phone: (02) 6351 3052, Fax: (02) 6352 3876

LONDONDERRY

Core Library
947–953 Londonderry Road,
Londonderry NSW 2753
Phone: (02) 4777 4316, Fax: (02) 4777 4397

ORANGE

185 Anson Street, Orange 2800
(PO Box 53 Orange NSW 2800)
Phone: (02) 6392 6333, Fax: (02) 6392 6363
After hours – emergency only – (02) 6392 6358

SINGLETON

1 Civic Avenue, Coal Services Building,
Singleton NSW 2330
(PO Box 51 Singleton NSW 2330)
DX 7071
Phone: (02) 6572 1899 (Inspectors)
Phone: (02) 6572 4200 (Geology)
Fax: (02) 6572 1201

THORNTON

Mine Safety Technology Centre
8 Hartley Drive, Thornton NSW 2310
(PO Box 343, Hunter Region Mail Centre,
NSW 2310)
Phone: (02) 4924 4000, Fax: (02) 4924 4080

WOLLONGONG

State Government Offices
Level 3, Block F, 84 Crown Street, Wollongong
NSW 2500
(PO Box 674 Wollongong NSW 2520)
Phone: (02) 4227 1699, Fax: (02) 4226 3851

Calendar of Events

WORK AREA	EVENT	EVENT TYPE	LOCATION/VENUE TIME / DATE	CONTACTS
Mining	Mine Operators' Workshops 2005	Training Seminar. Bookings – see contact for more details.	Morilla Street, Lightning Ridge Workshops held regularly.	David Howell, Mine Safety Officer, DPI (02) 6829 0678
Mining	Safety Awareness Course	Training Seminar. Bookings – see contact for more details.	Lightning Ridge Bowling Club. Courses held regularly.	David Howell, Mine Safety Officer, DPI (02) 6829 0678
Electrical	Southern NSW Electrical Engineers	Meeting. Bookings – see contact for more details.	August 2005 Held annually	Stann Maginnis, Inspector of Electrical Engineering (02) 6351 3052 or 0417 223 875
Mechanical	Hunter Valley Underground Mine Mechanical Engineers Meeting	Meeting. Bookings – No charge, see contact for more details.	Quarterly meeting, see contact for more details.	Paul Drain, Mine Safety Officer, DPI (02) 4931 6652
Mechanical	Hunter Valley Opencut Mine Mechanical Engineers Meeting	Meeting. Bookings – No charge, see contact for more details.	Next Meeting – Bengalla Coal Mine. Time and date to be advised (Quarterly meeting).	Matt Willoughby, Mine Safety Officer DPI (02) 6572 1899
Mechanical	Southern & Western Coalfields Mechanical Engineers Meeting	Meeting. Bookings – No charge, see contact for more details.	TestSafe Londonderry, date to be advised.	Graham Johnston, Mine Safety Officer, DPI (02) 4222 8307
Electrical	Hunter Valley Electrical Engineers meeting	Meeting (open) Booking: No charge – see contact for more information.	Held bi-monthly on the first Friday of the month – venues change for each meeting.	Steve Millington, Inspector of Electrical Engineering (02) 6572 1899 or 0409 836 286
Electrical	Southern and Western coalfields Electrical Engineers meeting	Meeting (limited numbers). Booking – Senior electrical engineers limited numbers see contact for more information.	Time to be advised, Londonderry. Last meeting held Thursday 17 February 2005 (held approx. quarterly).	Paul De Gruchy, Mine Safety Officer, Electrical Engineering (02) 4227 1699 or 0417 226 362
Electrical	HIESN (Hunter Industry Electrical Safety Network)	Meeting. Booking – see contact for more information.	Meets the first Thursday of each month – venues change.	Peter Henderson, Tomago Aluminium 0408 683 544
Electrical	DPI Annual Electrical Engineering Safety Seminar	Seminar. Bookings – See contact	Penrith Panthers, Mulgoa Rd, Penrith. November 9 and 10	John Waudby, Senior Inspector Electrical Engineering, (02) 4931 6641 or 0418 295 656 or Tracey Lee Smith on (02) 4931 6546

For more information go to: www.minerals.nsw.gov.au/safety/upcoming_events



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NSW DPI—Minerals Resources, Tollfree 1300 736 122