

MINERALS AND EXTRACTIVE OPERATIONS NEWSLETTER

October 2006



Introduction

Welcome to the October 2006 edition of the Minerals and Extractive Operations group newsletter.

The newsletter is distributed to all Victorian mine and quarry owners, industry associations and other stakeholders and should be provided to each of your worksite managers and other interested operations' staff.

The newsletter is also available on the Department's website at www.dpi.vic.gov.au through the Minerals and Petroleum pages.

Should you have any comments regarding the content of the newsletter, or wish to suggest any topics for future editions please contact John Mitas on 03 9658 4422 or email john.mitas@dpi.vic.gov.au.

New Publications

WorkWise - a combined State Coroner's Office and Victorian Institute of Forensic Medicine newsletter with the aims of:

1. improving the awareness of workers and employers about possible work-related fatality prevention opportunities, and lessons from past cases that can be applied to their own workplaces, and

2. improving an organisation's understanding of the coronial system, and the work performed by the Work-related Liaison Service.

This newsletter - to be published on a quarterly basis - is available on the web at www.vifm.org/workwise.html, alternatively subscriptions (free of charge) can be sent to your preferred email address by contacting wrls@vifm.org.

Health and Safety in the Workplace

If a job is worth doing, it's worth doing the right way - the first time

G A McLaughlan - Adapted from an article 'Doing It Right vs Doing it Right Now' by John Mapp, MARMC Safety Specialist - US Navy Naval Safety Center August 2006

Let us walk through the aftermath of an incident. The details don't matter much - any incident at all will do.

First, the victim of the incident will need to be treated for his/her injuries.

This could be as simple as basic first aid from his/her workmates or as complex as a massive national mines' rescue presence

at your minesite - accompanied by a significant press contingent.

Question: How much work is getting done while all this is going on?

The victim might need to go to first aid. Even if he/she is able to get there under his or her own power, you've lost that worker for a considerable part of the day, at the very least. If it requires a workmate to help the victim to first aid, there's more time lost.

Next, your operation's safety officer will have to stop normal routine to begin the process of investigating the incident. He or she will have to interview witnesses, examine and/or clean up the scene, and act as the liaison with the local mines' inspector. There's more time out of your production schedule. The paperwork part of the incident investigation may also involve several people, including the safety officer and the shiftboss/supervisor, away from their regular work for the length of time it takes to fill out the reports properly. Then the department head will have to explain to the mine manager what happened and why.

There may be an investigation by the Minerals and Petroleum Regulation unit. This investigation will involve interviewing witnesses, safety officers, supervisors, and the victim. Your operation's training records and standard operating procedures will be reviewed, which will probably involve your training officer.

All of those people will be unavailable for their normal jobs while they are being interviewed.

Lastly, there is the post-incident training. Your entire operation may have to stop work and hold training on the incident:- what caused it, what contributed to it, and how to prevent it from happening again.

How many dozens of man-hours have you lost to all of this? Isn't it better on almost every level to do it right - and *safely* - the first time around?

The few minutes it takes to use PPE, follow precautions, or even to simply slow down and do it *right* instead of *right now* is a far better use of your workmates' time than dealing with the aftermath of an incident.

Somehow, we always have time to do things right *after* an incident.

'All fatalities, injuries and diseases are preventable'.

None of the jobs we do at the mine are so critical that we - as supervisors and leaders - should risk the life and health of the men and women under our care.

We have a *responsibility* to everyone under our direction, or authority. Leaders must protect their subordinates from themselves; from the many hazards that beset us in our chosen line of work; and - most importantly - from creating a false sense of urgency about the work they do.

Subordinates must take responsibility for their actions, and pay attention to their own safety.

The work we do in the mining industry is important. We supply an endless array of products that contribute to our current lifestyles. However, very few tasks *require* us to risk the lives of our workmates. But we do ... every day.

Just because we sometimes get away with it for a while doesn't make it right, safe, or a good idea. We are playing Russian roulette with the lives of our workmates every time we let production targets encourage risky shortcuts.

The Law of Averages *always* catches up with you.

Do not take shortcuts. Do not allow your eagerness (or that of your subordinates) to over-ride basic safety precautions.

Production targets are not worth your life, or your workmate's life - it isn't worth getting anyone hurt, sick, or permanently disabled.

We are the leaders, the supervisors the providers of direction and guidance. What sort of guidance are you providing? Do you lead by example when it comes to Safety? Do the people at the 'coal' face think that your primary motivation is meeting production targets? If they do, then *you* are part of the problem.

Get involved in Safety. Make it your **first** priority. Make sure that your workmates know it is your first priority. Keep track of workmates who have more incidents than others - they probably require closer supervision. Pay attention to the results of the daily toolbox talks, workplace inspections, and 'near-miss' reports. Are you seeing the same or similar hits on a regular basis? These are warning signs that the Law of Averages is catching up.

We must never let the death or injury of a workmate become just another statistic. Never accept incidents as "the price of doing business". Help establish a culture where people pay attention to what they're doing, think about what could go wrong, and decide what can be done to prevent it. Empower them to act on their knowledge and experience, and reward them for the incidents they save. Leaders need to be involved in establishing these

habits and attitudes - both on and off the job.

The people who work for us are our most important assets. If you don't take care of your people, they can't - and won't - take care of you.

If you are in a leadership position, *your* reputation is in *their* hands.

Workplan Endorsement and Approvals Report

The Department is now producing a report that summarises the status of extractive industry, mineral exploration and mining workplan approvals.

Listed in order of tenement type and number (ie. WA, MIN, EL), the report shows the date for the following key stages of the workplan approval process:

- ▶ lodgement of the work plan with MPR;
- ▶ requests by MPR for further information;
- ▶ provision of further information by the proponent;
- ▶ referral of the work plan to DSE and other agencies;
- ▶ endorsement of the work plan
- ▶ (mining and extractive industry work plans only);
- ▶ final approval of the work plan.

The report is updated fortnightly and includes information about workplans lodged after 1 May 2006, and can be viewed and/or downloaded in PDF format from the DPI website: www.dpi.vic.gov.au/minpet.

Click on the 'Licences and Approvals' link, the 'Licence Lists' link, then 'WorkPlan Endorsement and Approvals

Report', or alternatively, send an email to:

kathryn.pound@dpi.vic.gov.au

who will email you the web page link which you can cut and past into your browser. Should you have any queries about the information presented in the report please contact John Mitas, Manager Minerals & Extractive Operations, on 9658 4422.

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Self-assessment of rehabilitation bonds

The Department is developing a new approach for determining rehabilitation bonds for mining or quarrying operations which will enable licensees to undertake their own assessment of the rehabilitation liability of their site. The new approach has involved the development of a comprehensive rehabilitation bond calculator by URS with input from Environmental Officers and Inspectors. The calculator is currently being trialled internally. The next steps will involve a period of industry consultation. A copy of the rehabilitation bond calculator and associated guidelines will be made available to stakeholders from November 2006. Stakeholder representative groups will be briefed as required.

The self assessment approach will be utilized as part of the rehabilitation bond review program, with the Department continuing to set the initial rehabilitation bond for all operations. Rehabilitation bonds are periodically reviewed to

ensure they remain up to date. Operations scheduled for a bond review will be encouraged to submit a self assessment of rehabilitation liability using the calculator. These will then be considered by the Department in the review of the bond. Mining licensees will also be requested to submit their annual rehabilitation liability assessments using the bond calculator.

The use of the calculator for small operations with no fixed infrastructure, such as shallow gypsum and gravel pits will be optional. A simpler approach, which will allow for the application of standard rehabilitation rates, per hectare of disturbance, is being developed for assessing the rehabilitation liability of these operations.

For further enquired contact Susan Ryan on 9658 4432 or susan.ryan@dpi.vic.gov.au

Legislation update

On 30 August 2006, the title of Victoria's mineral resources legislation changed from the *Mineral Resources Development Act 1990* to the *Mineral Resources (Sustainable Development) Act 1990*.

The status of any legal instruments including licences, work plans and work authorities, approvals and registered documents issued under the Act are unaffected by the change in the title of the Act.

Any reference to the *Mineral Resources Development Act 1990* is deemed to be a reference to the *Mineral Resources (Sustainable Development) Act 1990* unless the contrary intention appears. Therefore, all references to the old title of the Act in any publications, documents or notices issued by the

Department of Primary Industries should be read as if it were referring to the new title of the Act.

The Act has also been amended to introduce a range of changes to support the sustainable development of the minerals industry including the introduction of principles of sustainable development, and measures to improve community engagement. Amendments to improve the assessment of rehabilitation liability, and enable the direct allocation of coal have also been introduced.

Significant Incident Reports

All the Significant Incident reports are published on the Department's website www.dpi.vic.gov/minerals under Petroleum/Health and Safety/Significant Incidents.

The latest Significant Incident Reports are attached to this newsletter for distribution and discussion with your employees.

The Department has commenced emailing Significant Incident Reports to Tenement Holders as they become available.

If you would like to be included on this email list, please email jane.fay@dpi.vic.gov.au quoting your Tenement Number/s and the appropriate email address.

Prosecutions

Local-Mix Quarries Pty Ltd	
Date of Offence:	4 June 2005
Date of Prosecution:	6 June 2006, at the Geelong Magistrates Court
Magistrate:	Beck
Plea:	Guilty

Result:	Convicted and fined \$14,000. Plus \$1200 costs.
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A young trainee front end loader operator sustained very serious injuries when he became entangled in a moving conveyor on a mobile crusher. He had only worked at the quarry for a short time. He had no previous experience in the industry and had not been provided with a safe system of work.

Just prior to the incident, the quarry manager instructed the operator to clean spillage from under a conveyor that was located on the crusher's trailer deck. No other instructions were given. The operator did not shut down and lock out the conveyor and the manager did not ensure this was done. The operator shovelled spillage from both sides of the trailer deck and then climbed onto the trailer mudguards, where he noticed a build up of material in the conveyor's return roller guard. As he attempted to use a small D handled shovel to dislodge the material, the moving belt and roller grabbed the shovel and dragged the operator up into the conveyor, jamming him between the belt, roller and guard. This caused the conveyor overload to be activated, shutting down the conveyor.

As a result of being entangled in the conveyor, the operator sustained fractures to his ribs,

collarbone and hand. He also sustained a collapsed and punctured lung, internal bleeding, air and blood in his body cavity, laceration to his left hand and grazing on his right arm, head and face.

The operator was rescued by the manager and transported to hospital. He was admitted to intensive care and underwent an operation. He was released from hospital after two weeks. He recently underwent a further operation and will still require ongoing medical treatment, more than twelve months after the incident.

After the incident, it was found that the fitted return roller guard had very large front and rear openings and did not prevent access to the in-running nip point created between the conveyor belt and the return roller. In addition, the trailer deck was readily accessible and was not fitted warning signs or guards to prevent access to the conveyor return rollers.

Breach of Section 21 (1), (2) (a) of the Occupational Health and Safety Act 1985 and Regulation 705 (1) of the Occupational Health and Safety (Plant) Regulations 1995.

The magistrate stated that the operator had sustained very serious injuries and the incident had been very traumatic for the operator and everyone involved. He also stated that under the OHS legislation, employers have an obligation to provide highest standards of health and safety. Whilst it is not always easy for employers to comply with their obligations, it is an important requirement of the legislation and is expected by society in general.

Defor Pty Ltd (Evans Quarry) Appeal	
Date of Offence:	29 March 2004
Date of Previous Hearing:	2 March 2006, at the Wonthaggi Magistrates Court
Date of Appeal Hearing:	14 August 2006, at the Sale County Court
Judge:	Campton
Plea:	Guilty, but conviction was not warranted.

Result:	Previous conviction overturned. Upheld fine of \$25,000, without conviction. Plus \$1000 costs.
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A new quarry employee sustained very serious injuries to his right arm and shoulder when he became caught in an unguarded moving conveyor.

The employee had only worked at the quarry for seven weeks. He was a qualified and experienced mobile plant operator and had some crushing plant experience, but no formal training. During his first week, the employee was shown how to run the crushing plant. This was on the job training with some verbal safety instructions. He was also told to call the supervisor if there was a problem. He was not given a site induction, documented safety information or instructions or formal training.

On the day of the incident, the employee was operating the crushing plant by himself. It had been raining heavily and this caused a Canica crusher feed conveyor belt to slip. When the employee noticed the slipping belt, he grabbed a can on Belt Grip and went down to the conveyor. He did not stop the conveyor, as the surge bin was full and he wanted to keep the plant running. The employee climbed onto the

Canica crusher, and from there had easy access to the

unguarded conveyor drum. It was normal practice for persons to climb onto the top of the Canica crusher to do maintenance work. To spray the Belt Grip he put the can in behind the conveyor head drum, where his right arm became caught between the moving belt and the rotating head drum. This resulted in dislocation of his shoulder, fractures to his arm and a substantial loss of flesh from his forearm.

Other employees saw the trapped employee waving and the plant was shut down. It was over an hour before he could be released. He was then taken to the Alfred Hospital by helicopter.

Prior to the incident, the Department had provided the company with substantial advice and information about the need to do hazard identification and risk assessments, the need to guard dangerous plant, including conveyors, and the need to provided employees with safe systems of work. Also, the company had previously been issued with Prohibition and Improvement Notices in relation to conveyor guarding.

Breach of Sections 21(1)(2)(a) and 21(1)(2)(e) of the Occupational Health and Safety Act 1985.

Her Honour stated that the company had an obligation to provide a safe working environment for its employees and that in this case the company had clearly failed in that obligation. It could be predicted that new employees may make errors of judgement. As a result, companies must take the necessary action to ensure employees are not injured as a result of such errors.

Her Honour also stated that the company's plea of guilty, their previous good record and high standing in the quarry and

concrete industry, along with their positive response to the incident and their resulting commitment to providing the highest safety standards, should be taken into account when considering the matter of whether to record a conviction.

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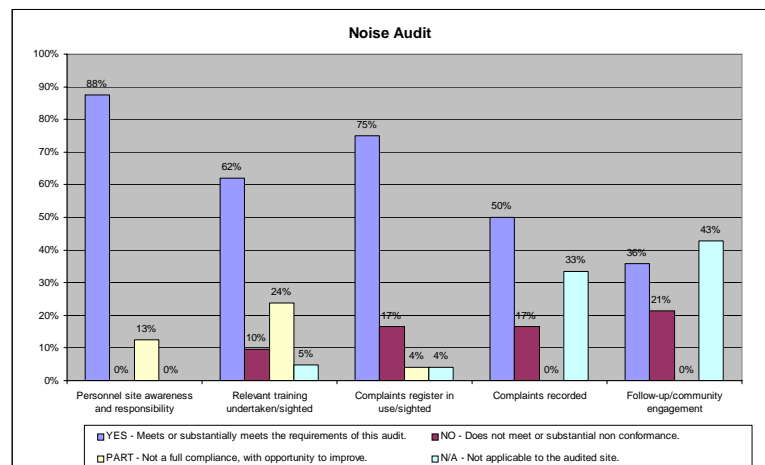
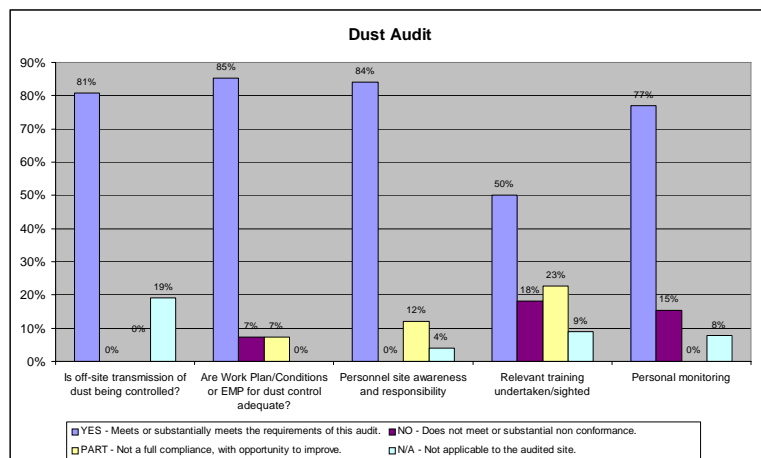
Noise/dust 'blitz'

The noise/dust control 'blitz' carried out by officers of the Minerals and Petroleum Regulation group recently, is now complete. Officers made unannounced visits to thirty-one worksites (mines and quarries) across the State to investigate the effectiveness of controls in place to provide appropriate management of potential noise and/or dust problems arising from their operations.

Where necessary directions were issued - these will be followed up to ensure compliance.

A number of issues were identified that presented opportunities for improvement, including the control of off-site dust transmission, employee training (fugitive dust and noise), and community consultation and follow-up.

The following histograms provide a snapshot of the results of some elements of the 'blitz'.





Focus on Progressive Rehabilitation

The next targeted audit programme will be focussing on progressive rehabilitation for mines and quarries across the state.

An audit tool has been developed for the project and the audits are scheduled to be carried out in October 2006 and November 2006.

Quarry and mine owners are required under the legislation to carry out progressive rehabilitation and as far as practical, complete the rehabilitation of the land before the expiry of the work authority/licence.

Progressive rehabilitation makes good sense, as it reduces the rehabilitation bond liability and any associated rehabilitation bond increases.

Progressive rehabilitation also reduces the visual impact of the site and demonstrates to the community that the resource sector is serious about minimising the impacts on the environment.

strzelecki awards

For Sustainable
Development in the Earth
Resource Industries

The Strzelecki Awards are again being offered following the huge success of the inaugural awards in 2005.

The Strzelecki Awards recognise outstanding achievements in the area of sustainable development within the Victorian earth resource industries. The awards are open to mining, petroleum and extractive industry operators. They give both large and small-scale operators the opportunity to showcase their organisation and strengthen partnerships between government, industry and the community.

The inclusion of a new award for small operators and the introduction of community judges for the community engagement award will enhance the 2007 Strzelecki Awards. The Strzelecki Awards are jointly administered by the Department of Primary Industries (DPI) and the Banksia Environmental Foundation.

Entries open from 12 October 2006 and close 5pm, Wednesday 7 March 2007.

Entry form, and award and eligibility criteria are included in the Award Entry Kit which will be available from the Banksia Environmental Foundation website at www.banksiafdn.com from 12 October 2006.

Two levels of award will be on offer: four Gold Awards, including a new award for small business, and a discretionary Platinum Award. Gold Awards will be presented to companies, groups or individuals that achieve excellence in the management of particular aspects of sustainable development. Entrants may enter each of the Gold Award categories with a separate entry for each:

- ▶ **Gold Award for Community Engagement** - Awarded for excellence in the effective engagement of the community in the development of Victoria's earth resources. Sponsored by the Department for Victorian Communities.
- ▶ **Gold Award for Industry Best Practice** - Awarded for excellence in the operational management of environmental impacts associated with exploration and/or development sites. Sponsored by EPA Victoria.
- ▶ **Gold Award for the Management of the Natural Environment** - Awarded for excellence in the protection, enhancement or rehabilitation of natural environments or landscapes.
- ▶ **Gold Award for Small Business** - A new award presented for excellence in any one aspect of sustainable development by small business in the earth resource industries.
- ▶ **The Platinum Award** - A discretionary award that may be presented to a project that addresses all aspects of sustainable development. To be eligible candidates must have entered their project in each of the Gold Awards for Community Engagement, Industry Best Practice & Management of the Natural Environment.



Why enter the Strzelecki Awards?

Award winners:

- ▶ will receive valuable publicity in the metropolitan press
- ▶ be recognised for excellence in the management of sustainable development issues related to your business
- ▶ receive a Strzelecki 2007 Award Watermark to place on your business / organisation letterhead
- ▶ can demonstrate to staff, clients and business contacts that they have been publicly recognised for their level of achievement in sustainable development

Benefits for companies or organisations entering the awards:

- ▶ recognition of excellence in the management of sustainable development issues related to you business
- ▶ develop networks with environmental groups, government, industry and within communities
- ▶ use the award to build awareness and further contribute to sustainable development within your own business

Previous Winners of the Strzelecki Awards:

The 2005 winner of the Gold Award for Community Engagement was mineral sands miner, **Iluka Resources** for their Douglas project. General Manager for the Iluka Murray Basin project, Peter Beilby, said winning the award was a major event for the company. 'Winning the Strzelecki award was a huge accomplishment for Iluka.'

Loy Yang Power won the Gold Award for Industry Best Practice. The award was given for Loy Yang Power's development of an ISO 14001 compliant Environmental Management System which sets out an environmental policy, objectives and targets and roles and responsibilities for environmental management.

The Gold Award for Management of the Natural Environment and the Platinum Award was won by the **Readymix / Boral Pty Ltd** joint venture for work at its Karkarook Park project. Karkarook Park is a unique example of collaboration between Government and industry applying the Triple Bottom Line approach with stunning results for business, the community and the environment, turning a 40Ha wasteland into a 40Ha environmental wonderland.

Highly Commended in the Gold Award for Management of the Natural Environment was the Mine Rehabilitation Program, **Alcoa World Alumina Australia**, Anglesea. The long-term aim of Alcoa's mine rehabilitation program is to establish a diverse, self-sustaining healthy woodland ecosystem. In 2003 Alcoa exceeded their species diversity goal with 110% species renewal and 10% greater species diversity in the rehabilitated area compared to the unmined area.