



VOLUME 2
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A welcoming message from the chairperson

I would like to say congratulations and thanks to all those people who had input into the development of the MARCSTA Underground Induction.

It was a long process but the aim of the Committee Members was to get it right, all sections of the underground industry have made their contributions to the induction. The list would be long to thank every individual, but there are a couple of people I want to thank and they are:

Vic Roberts (CSR Readymix) the Chairman of the Induction Committee, David Bies (Western Metals) for his photography skills, Jim Torlach (DME) for his editing skills, Tom Bateman (Provider), Tony Aveling (Provider), for keeping it focused and Pat Gilroy (Chamber of Minerals Energy) for his ongoing support.

MARCSTA is an Association that firmly believes in continuous improvement and as such we are now seeking the accreditation to become a Quality Endorsed Training Organisation (QETO). At the same time we will be seeking to become an Association Quality Endorsed to ISO 9000.

Like most new businesses we have had our fair share of rough patches, but we have had to be fast learners as we are driven by industry needs.

We are always looking at ways to improve the delivery of the induction and to ensure the quality of the material is constantly updated.

The MARCSTA Providers have formed their own Committee to review the training material and they now have their own representatives attend the MARCSTA General Meetings so that feedback is much quicker both ways.

It is much more difficult to become a provider today than it was two years ago, firstly they are

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Greg Harris
MARCSTA Chairperson

required to face an industry panel. Once the selection panel has approved the person they are then required to give a two hour presentation to the same panel to demonstrate their communication skills. If successful with this final panel they then become probationary providers for the next three months. During the three months they will be audited to ensure that they are complying to the MARCSTA code of practice. Upon completion of the three months without any complaints they are then a full provider.

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New editor for the Monitor



Geoff Taylor is the new editor of the Monitor. Geoff is currently Vice-President of the Safety Institute of Australia, a Chartered Fellow of the Institute and the editor and co-author of two books on health and safety at work, *Enhancing Safety* and *Advancing Safety*.

Geoff developed and ran, with Roy Hegney, the safety courses for mining industry supervisors for the Chamber of Minerals and Energy in 1990-1, and coordinated the provision of over fifty courses on consultation in health and safety for the mining industry, once again for the Chamber.

He introduced distance education in OHS through the Australian Centre for Work Safety at TAFE so that the training would be available in a flexible way to people wherever they worked. As a result the courses have attracted many people from mining.

More recently he has audited safety on, and developed environmental plans for minesites. Geoff hopes you will find the Monitor interesting, and welcomes news items, comments and suggestions. You can contact him on 08-93547590 or geoff@tower.net.au

First MARCSTA Underground Induction

Gary Sharpe of TRACMIN ran the first of the new underground inductions at Kambalda recently. He was assisted by Janet Undy, and Tom Bateman who looked after meals, coffee, demonstration equipment and general backup. Greg Harris, our chairperson attended as an observer and participant.

The course was multimedia-based and attracted eleven safety and health representatives and contractor safety managers. Two were called away due to site injuries.

TRACMIN ensured there was ongoing formative assessment throughout the course, and there was formal assessment at the end of each of the three sections of the course. A summative assessment was used to assess participants' overall skills acquisition on Section 4.

WMC paid close attention to the course to see how it fitted with their

Right:
Participants in the first MARCSTA underground induction.

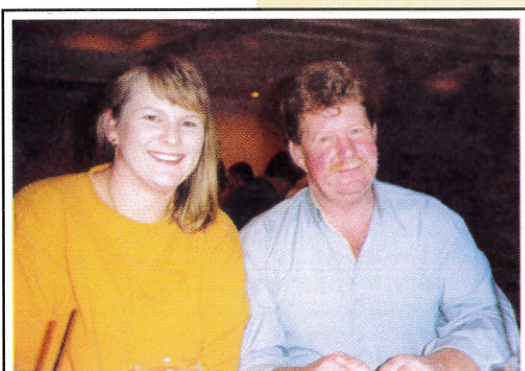


existing safety training. Feedback was good, as

might be expected from the experienced participants on the course, and has already been used to improve the course for next time.

Gary deserves a pat on the back for running this first course for an experienced audience. It was a tough call and he carried it off well.

The Underground induction is taken after the general induction. There is an excellent handbook which includes a glossary, mining and mining systems, ventilation, PPE, being seen for pedestrians, travelling safely, mine access, assessing your workplace, safety signs and barricades, explosives and magazines, and emergency procedures.



(Left) Janet Undy, Manager and Gary Sharpe, TRACMIN Kalgoorlie based Underground MARCSTA Provider

In early September, trial MARCSTA courses were run in Tasmania. Alan Chester, now the occupational health and safety manager for the Beaconsfield Gold Joint Venture was the man behind the move.

MARCSTA moves East (and South)



(Above) First Tasmanian MARCSTA General Induction by Tom Bateman – Group of participants from Beaconsfield Gold Mine. The Induction was held in the Community Hall 80 metres from the Headframe!

He had previously run MARCSTA inductions in Kambalda. The course was presented by Alan on behalf of TRACMIN, and he was assisted by Tom Bateman. Beaconsfield is about 40km north of Launceston on the banks of the Tamar River opposite the Bell Bay smelter. The mine sits right in the centre of the town, and is a joint venture between Allstate Exploration and Otter Gold Mines. It is an old mine (1877), but a *greenfields* site, because it has not operated since 1914.

Four courses were run, two surface, two underground, involving twenty trainees. The format was agreed on after extensive discussion at the last MARCSTA management meeting, as it was our first opportunity to promote our course in the south east. The MARCSTA Induction was followed by a Ground Awareness and Control Course.

Safety trainers from Box Hill TAFE in Victoria, and Tasmanian TAFE safety

trainer Dale Cocker were invited as observers. A number of Beaconsfield managers also sat in and assessed the course and its delivery.

The course participants included experienced people from Western Australia, New South Wales and Tasmania. Everyone passed the course, and some interesting discussions on such specifics such as firing times took place.

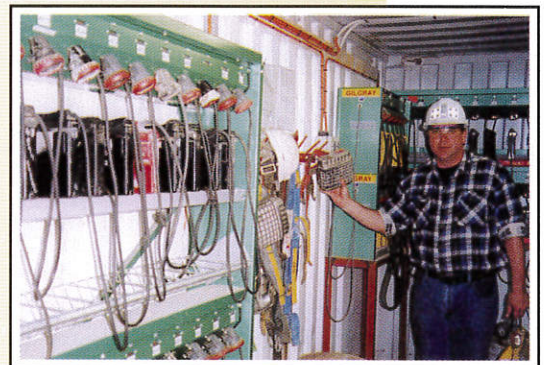
There are three induction courses recognised by the Tasmanian Department of Minerals and Energy and the Tasmanian Minerals Council – MARCSTA, Tasmanian TAFE and SGS.

Another MARCSTA induction at Beaconsfield is expected soon, and a range of companies will be invited to participate.

To Alan Chester and TRACMIN, congratulations.



(L-R) Tom Bateman, MARCSTA Provider and Alan Chester, Occupational Safety & Training Manager at Beaconsfield Mine Joint Venture in Tasmania.



Alan Chester – Occupational Safety & Training Manager in Lamp Room at Beaconsfield Gold Mine (holding Oxygen self rescuer)

Chairperson's message continued

To date around 27,000 people have been through the MARCSTA Induction. The MARCSTA Association is a voluntary organisation and is now becoming quite difficult to run on a voluntary basis so from next year a full

time Chief Executive Officer will be appointed to coordinate the day to day running of the organisation.

It has never been the aim of MARCSTA to be a money making machine. MARCSTA is a non profit Association

with all of our earnings ploughed back into our industry so that we can fulfil our mission of making the Western Australian Mining Industry the safest and the best in the world.

Greg Harris



Who's Who?

CHAIRPERSON

Greg Harris, BGC Contracting

VICE CHAIRPERSON/ TREASURER

Terry Condipodero, JR Engineering
Services Pty Ltd

SECRETARY

Bob Halse, Monadelphous Group

ADMINISTRATOR

Carole Halse

INDUCTION

Ross Graham

TRAINING

Vic Roberts

PROMOTION

Warren Claydon

ACCREDITATION

Irene Ioannakis

MARCSTA MONITOR EDITOR

Geoff Taylor

BHP Newman Comes on Board

6 *BHP Iron Ore at Newman has introduced MARCSTA Induction at the site since the first of August, with a three month phase-in period. BHP's Dave Fitzgerald said that with 24,000 contractors who have undergone MARCSTA Induction, there had been strong pressure from BHP's contract workforce to make the move. In future contractors who already have a MARCSTA ticket will only be required to attend another site specific three and a half hour induction, covering such things as BHP's tagging out and locking out regulations. From BHP's point of view, the company's involvement in delivery has been reduced by half, a considerable cost saving. Hedland College Newman Campus will run the course through a registered provider, Wayne Sullivan of Wayval Safety Consultants.*

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

TELEMINING

Mining Magazine for September 1998 describes how AMS, in partnership with Tamrock, Dyno Nobel, Canmet, Bell Canada, Precarn Associates and Inco, demonstrated its advanced remote control technology. A miner in Montreal was able to operate three drills 800km away over 600 m underground at Inco's Stobie mine in Sudbury. The Rabbit Lake uranium mine already uses AMS technology to control LHD's from a trailer well away from the ore pile.

BRIGHT FUTURE FOR GOLD PREDICTED

The CEO of Placer Dome, John Willson, in the June 1998 *Engineering and Mining Journal* is reported as telling shareholders that even though there had been a sharp decline in the gold price, the metal still responds in its

unique way to a monetary crisis. He sees gold as the insurance of savings and wealth in the face of perils to the monetary system and the financial markets.

BUTTING OUT

The *Canadian Mining Journal* for April reports that the Ontario Mining Association started a Smoking Cessation Program in early 1997. It is the first industry-wide smoking cessation program in the world, the journal claims, and it has already gained broad acceptance. The Campbell Gold Mine at Red Lake aims to be smoke free by the beginning of 1999 and Kidd Creek in Timmins by the year 2000.

NORMANDY BOOST TO CALLIE

Mining Journal August 1998 reports that Normandy NFM is to invest another \$100 m in its Callie underground gold mine in the Northern Territory in 1998-9.



SKILLED ENGINEERING



Founded in Melbourne by Frank Hargrave, AO, in 1964, the company then specialised in the recruitment and supply of supplementary labour to a broad cross section of Australian industry. Skilled now employs over 6,000 people, has a turnover of around \$350m, and operates from over 40 branches throughout Australasia.

Skilled significantly restructured its operations to meet changing markets. There are now individual business units, including Contract Maintenance, Communications, Personnel, Warehousing and Distribution, Engineering, Drafting and Technical Services and a Heavy Engineering Workshop to enhance maintenance capability.

Each office offers a service embracing tradespeople and professional hire, project management, engineering; instrumentation and process control, installation, commissioning and inspection. Services are provided on an individual basis or as totally integrated project workforces. Other services include mechanical workshops, equipment manufacturing and Melbourne port services. All offices are now quality certified to ISO 9002. The close working relationship between State branches provides a wide resource base to draw on.

Skilled's flexible workforce is based on the client maintaining a core group of full-time employees. In peak demands more people are hired from Skilled for a set period, a day, week, month, or for the life of a project. Skilled's hourly rates for its employees cover all entitlements, similar to those of your own workforce.

Skilled rates safety highly. All employees participate in a Skilled Safety Induction before commencing their first assignment. If site specific safety training is needed, Skilled ensures all personnel have participated in the additional training. Skilled recognises its most important asset is its employees, and takes seriously its duty to safeguard its employees' health and well being at work.

MARCSTA Members

Atlas Copco
Ausdrill Ltd
Australian Raised Drilling
AWP Contractors
Barmenco
BGC Contracting
Boral Contracting
Brambles Ltd
Brandrill Ltd
ByrneCut Mining Ltd
Charles Hull Contracting
Clough WA
Cook's Construction Ltd
CSR Readymix
GIS Engineering

Henry Walker Contracting
JR Engineering Services Pty Ltd
Macmahon Contractors
Monadelphous Group Ltd
NS Komatsu
Roche Bros
Skilled Engineering
Thiess Contractors
Total Corrosion Control
Westrac
This list is current at the time of going to press but for further information contact Carole Halse at the Secretariat on 08-93135466.

WHEELED LOADERS PREFERRED

World Mining Equipment for September 1998 reports on the Spanish miner Minas de Rio Tinto's decision to opt for Caterpillar wheeled loaders. Operating on a large site with several different levels, stringing power cable to cable shovels limited operating flexibility. The low running costs of such shovels are offset by infrastructure requirements and lack of freedom of movement. Use of the wheeled loaders allowed continuous blending of ore from three different working faces.

NEW CODES AND GUIDES

Dangerous Goods

Comments on the draft National Standard and National Code of Practice for the Storage and Handling of Dangerous Goods closed at the end of July. When they are completed the new standard and code will complement the ADG Code which addresses safe transport of dangerous goods by road and rail. The new storage and handling standard and code will be issued by Worksafe Australia and adopts a performance-based approach. The aim is to reduce unnecessary regulatory burdens by providing nationally consistent OHS, public health, environmental and transport requirements, and a concise set of performance-based requirements, rather than prescriptive requirements as at present. This would tie in with the Worksafe Australia national standards for workplace hazardous substances and major hazard facilities. The draft proposed to end what it describes as the inflexible technical requirements of Australian Standards, although those Standards would still be referenced to provide guidance on meeting the duty of care.

Surface Rock Support Code Comment Sought

The MOSHAB has put out a new code on surface rock support for comment. Responses are invited by 5th October. Copies are available from the DME.

Four more . . .

Four new publications are of interest:

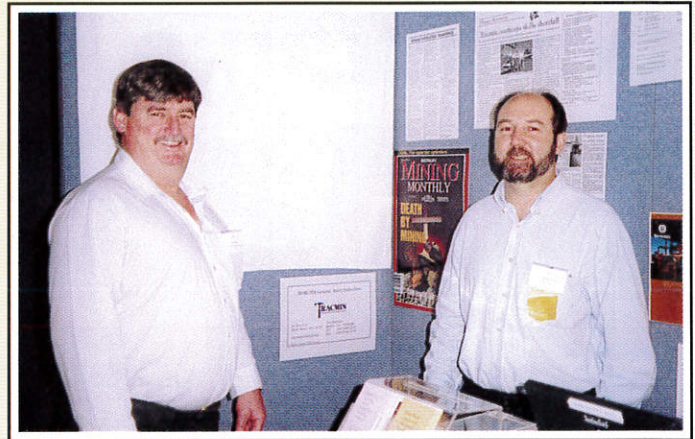
- The Chamber of Minerals and Energy's *Guide to Positive Performance Indexing*
- The Department of Minerals and Energy's *Nugget's Safe Mining* series and the series of twenty four *Mining Guidelines*.
- DME have also published a booklet for the families of dead miners on the operation of the WA coronial inquiry system, and how affected families can get further help.

TESTED IN COURT

Nury Vittachi of the *Far Eastern Economic Review* records that a man recently appeared in a Colombo court. He threw an object at the arresting officers. The bag contained er... excreta. It hit a fan. The result was widespread unpleasantness. Thus, says Nury, a widespread metaphorical phrase used around the world received its first real-life test. You can now use the maxim with redoubled confidence in its accuracy, he concluded.

TRAM

(Training Resources Applied to Mining)
Brisbane Conference July 1998



(L-R) John Jury, C Y O'Connor Tafe and responsible for Underground MARCSTA development and Tom Bateman, TRACMIN who presented a paper to the Conference on the advantages of the MARCSTA induction as an alternative.

This three day conference on Training Resources Applied to Minerals and Energy was held in Brisbane in July. Tom Bateman from TRACMIN presented a session on MARCSTA's General Safety Inductions in one of the parallel workshops. Two sessions were held on The Australian Mining Generic Induction Passport, so there was the opportunity to make a direct comparison with the MARCSTA generic induction. Two sessions were also held on A First for Australia – Metalliferous Competencies.

John Jury of C.Y. O'Connor College of TAFE spoke on overcoming the vocational skills training barriers in remote mining operations. Distance learning technology for mining industry trainers was addressed by Ian Curtis of Shell Coal, Queensland.

IFAP's David Blyth spoke on maintaining safety training quality in a flexible learning environment, and also on being a quality trainer.

DRILLING SAFETY

In the July/August 1998 issue of *Australian Drilling*, Graeme Wakeling the editor, asks why drilling contractors have to comply with legal requirements and consultants in particular, appear to have a right to ignore many of their duties and responsibilities. He describes the situation where a driller had to drill on a contaminated site, and the consultant left it up to the driller to decide the level of protection required. The driller told the consultant that he would use maximum protection and it would cost so many dollars. The consultant then said he would get someone else to do it. Graeme asks how many people in the consulting area are familiar with hazard analysis, job safety analysis, instructions in writing and the like, or of the safety requirements applying to the drilling contractor.

MARCSTA REGISTERED PROVIDERS

Chris Annesley	TRACMIN	Gary Maher	TRACMIN
Tony Aveling	Aveling and Associates	Jeff Mathews	Safety Paradigms (Aust) Pty Ltd
Reuben Barber*	MacMahon Contractors	Darren Ridley	TRACMIN
Tom Bateman	TRACMIN	Victor Roberts*	CSR Readymix
Carl Berglin	TRACMIN	Gary Sharpe (U)	TRACMIN
Alan Chester* (U)	Beaconsfield Joint Venture (Tas)	Shane Salt	Safety Resolutions
David Collins	D&S Safety and Training	Rennie Sterle	CY O'Connor College of TAFE
John Cartwright	CJD Equipment	Wayne Sullivan	Wayval Safety Consultants
Geoff Dodge	Opalrose Nominees Pty Ltd	Peter Tredgett*	AWP Contracting
Peter Dowding	JR Engineering Services Pty Ltd	Dave Warner	IFAP
Joe Duvestyn	Drillcorp	Dave Watkins	Safety Skill Service
Ashley Gilbert*	Ausdrill Ltd	Chris Wilson	Management Consulting Services Pty Ltd
Ross Graham*	NS Komatsu		
Joe Griffiths	Mining Industry Training Pty Ltd		
Ray Hargreaves	RH Safety Training		
Joe Knight-Smith	—		
John Joyce*	Grimwood Davies Pty Ltd		
Bert Lundie	Baseline- New Era		
Malcolm McFarland	IFAP		
Nick McIntyre (U)	McIntyre Mining Services		

* denotes company trainer only. Remainder are commercial trainers. U denotes underground trainer as well. This list is current at the time of going to press but for further information contact Carole Halse at the Secretariat on 08-93135466.

Environmental Management for Non-environmentalists

Direct contractual responsibility for part of a principal's environmental management plan is a reality for many contractors. So a seminar in early September run by the Northeastern Regional Council of the Chamber of Minerals and Energy in Leinster was timely. Sixty-seven people attended. The seven speakers were Ian Satchwell, Executive Director of the Chamber, Jane Aberdeen, Executive Officer, Environment, from the Chamber, Bill Beggs from the Department of Minerals and Energy, Don Burnside, a consultant in rangeland management, Trevor Norton, of the Kalgoorlie office of the Department of Environmental Protection, John Robertson, of WMC Mt. Keith and Peter Johnson of Great Central Mines, Bronzewing.

While the primary legal responsibility for environmental management rests with the principal at any minesite, certain aspects of environmental management are being written into many contracts for work carried out by contractors. With or without such contracts, staff at all levels, including contractors' staff, are involved in ensuring best practice in environmental management.

To manage the environmental approval system, it is important for companies to take the initiative by identifying stakeholders and consulting with them early on. The Department of Minerals and Energy has just published Guidelines on Environmental Impact Assessment. The DME emphasised a desire to cooperate with the mining industry to achieve environmental objectives.

Mining affects very small areas of the environment overall compared with grazing. There are synergies between mining and grazing. Good rangeland management is going to be important in the future in relation to a carbon credit system to control greenhouse gas emissions.

It is important for companies to adopt the Australian Minerals Industry Code for Environmental Management. Commitment to it can confer preferred tenderer status, not just in Australia, but particularly now in relation to Philippine and Indonesian contracts. This is true not just for principals, but for contractors.

Environmental training is crucial. Legal responsibilities applying to different

groups in the workforce needed to be identified and training varied for each group. The general workforce are the ones actually engaged day to day in the many tasks which either ensure good environmental management or a string of non-conforming incidents.

Innovations in environmental management can have big production and bottom-line payoffs. Cyanide recovery and recycling, water recovery from tailings, and use of camp grey water for dust suppression are some examples.

The seminar provided a better understanding of how the whole environmental process works, and a clearer identification of the role and attitude of government regulators. It improved understanding of the obligations of principals and the steps they are taking, which in turn will improve contractors' ability to respond to environmental management challenges both during the tendering stage, and during the life of a contract.

The Northeastern Regional Council of the Chamber deserves congratulations for organising the seminar.

MARCSTA POSTERS

Members and providers are encouraged to obtain supplies of these safety posters from the Secretariat. Developed by Bob Halse, the three posters now available feature manual handling, job safety analysis, and MSDS. These posters are one of the ways in which MARCSTA is putting the money it earns back into the industry.

BLASTING SAFETY AT KCGM

The Miner for August 1998 reports on the introduction of an electronic tagging system at the Charlotte/Cassidy underground shaft. It replaces the traditional tag board to ensure the mine is all clear at blast time. As miners pass strategic points in the mine, passive tags worn by each miner are read by system detectors. This allows absolute tracking and identification of who is inside the mine and who has left it, in view of new mine access points. The new system is more flexible and efficient.

MARCSTA Monitor

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John's View

In the Safety Institute's Spring Journal there is an article by "John", who has worked in a range of mining operations. John believes the common vision of the mining industry is cost cutting, but at a real human cost. He said he has been at many meetings where every single contractor's hand was raised opposing the change to twelve-hour shifts. He describes the hazards to which people are exposed – job repetition, rock falls, fatigue, dust, fibres, gases, heat, diesel fumes and band-aid repairs on mobile plant. Twelve hour shifts increase exposure time to the hazards. As a ventilation officer he recorded extreme working conditions, gas explosions and heat fatigue. He removed an underground loader operator who had spent eight of twelve hours in 95% relative humidity because the shift supervisor had no spare ticketed operators. Long shifts are associated with excessive speed he says and

accounts for three near misses he had with mobile plant. He notes that contracting is a cutthroat business and whoever can move a ton of rock from the mine for the cheapest price wins the job. A good month in machinery down time can produce record tonnages, but then the tonnage becomes a principal's expectation every month. This filters down to breach of speed limits on night shift in a decline as there is little traffic, or a loader operator driving into an open stope rather than using remote control. Personnel are afraid to allow a work mate to use their equipment in case they lose their position. John concludes by noting that national standards would be useful. For instance a Western Australian underground miner is entitled to 50% more air than a South Australian. You may agree or disagree with "John" but he provides food for thought.

news and views ... news and

GRIZZLY REPAIRS

Australian Mining September 1998 reports that Pioneer Central Coast Sands have won this year's NSW Occupational Health and Safety Innovation Award. The prize was awarded for a simple work platform which gives safe access to a primary feed grizzly. The platform cost less than \$1000 but has increased plant utilisation by up to 40%.

AUSTRALIAN MINERAL FOUNDATION

AMF have recently expanded their presence in Colin St, West Perth. The new facility offers the mineral and petroleum industries a bookshop with the best selection of industry-related material in Australia, information on planned courses and seminars, and a demonstration facility for Australia's national geoscience database. AGSO and AMIRA are also housed in the facility.

VERTICAL PIT MINING

Samat mining is using a unique method for mining chromite deposits at its Inyala mine south of Zvishavane in Zimbabwe, *Mining in Southern Africa* reports in its First Quarter edition, 1998. A cableway system, together with systematic lateral support permits vertical or near vertical excavation faces. This alternative to an open pit reduced the strip ratio from 66:1 to 10:1. Ore can be extracted twice as fast, mining can be more selective in a small orebody and environmental impact is minimised.

METALLIFEROUS MINING TRAINING

Des Caulfield of the National Mining Industry Training and Assessment Board reports that work is now underway on the training package. This follows a successful submission for Australian National Training Authority funding.