



VOLUME 4  
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# M message from the CEO



Pat Gilroy, MARCSTA CEO

## Competence and its Retention

There is a lack of understanding about the meaning of 'competence' and the need to maintain it. While most professional associations and societies have special requirements for the retention of membership and these requirements are invariably built around retention of 'competence' most trades or occupations do not require regular demonstrations of competence.

Today competency based training is a requirement for most employment and the question of how to maintain that competence must be addressed.

Competency needs to be regularly addressed through one of the acceptable processes available and validated by someone accredited to do so. Many of the skills attained in the initial process may not have been utilised, may no longer be those needed for the task or may just have been lost.

The induction process is little different.

A refresher program every two years which reflects the current knowledge of safety procedures, rules and standards and which re-assesses competency is simply meeting the responsibilities of duty of care. The issue of maintaining competence through ongoing training has been emphasised in every recent mining or resource industry disaster inquiry. The possession of a current MARCSTA certificate is evidence of a commitment to maintaining competency.

### QETO

MARCSTA recently achieved quality endorsed training organisation status and in the process has taken on board a number of suggestions from its assessor that will move it further up the quality path. The Committee of Management have decided that the minimum standard of provider qualification will be Certificate IV in Assessment and Workplace Training and all providers must upgrade their qualifications, where necessary, to meet this requirement.

### Training Resources

The year 2000 General Induction Manual will be available in April and will be accompanied by the Facilitator's Training Guide for licenced providers to train and assess candidates. The refresher process will also be reviewed to ensure incorporation of current adult learning methods. A review of the Underground Induction will follow.

### Minesafe International 2000, 3-8 September 2000

The forthcoming Minesafe International Conference will provide an opportunity for participants to measure the safety and training standards currently being implemented against those in other countries.

There have been significant directional changes in the role of occupational safety and health professionals in recent years and it is timely to review what has happened and in what direction we are heading.

Minesafe will offer a diverse program of interest to all disciplines and with its status as one of the world's premier occupational safety and health events, attendance is a must for representatives from every level of activity in the mining industry.

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MARCSTA is a not for profit association.

All proceeds are reinvested into the industry for future development of safety and training

# Editorial

WorkSafe Western Australia have introduced a promising new initiative in OHS training.

They have identified the Australian National Training Authority National (ANTA) *Occupational Health and Safety Curriculum* as the benchmark for OHS training to Diploma level for those specialising in OHS, equal to half a university degree. They intend to extend the SafetyLine Institute (SLI), which allows people to train in OHS on the net and integrate it with the ANTA curriculum. They also intend to integrate the SLI with the national *Generic OHS Competencies* which were developed for employees, supervisors and those with responsibilities for managing work safety.

To achieve this, training providers wanting to take part will be licensed by WorkSafe to use SLI to assist in providing as many or as few modules of the Diploma as they wish, or certain parts such as noise and manual handling. Alternatively, a provider can acquire a licence to use SLI to provide the Generic Competencies. Providers will need to be registered training organisations (RTOs) or be partnered by an RTO, so that there is recognised certification and recording of competencies achieved. Generic Competency A is for those with no supervisory responsibility, B is for those with a supervisory role such as work team leaders, and C is for those with managerial responsibilities.

Providers are free to base their courses on suitable materials of their own or on existing textbooks and workbooks such as those produced by Training Publications in Perth or by Australian Training Products.

The concept offers an opportunity for students to gain recognition for existing studies and experience, and continue studying on the job.

The links between the national Generic Competencies, the MARCSTA Inductions, Unit 8 of the Frontline Management Initiative and core units 2 and 5 of the Metalliferous Mining Package are being explored to maximise the synergies between these and the WorkSafe proposal. MARCSTA is investigating ways in which it can participate in the SLI initiative.

*Geoff Taylor.*



# MARCSTA hits 50,000

Ryan Speirs, a driller offsider for Boart Longyear at the Homestake Lawlers mine, recently received the 50,000<sup>th</sup> Induction Certificate from the Minister for Mines, Hon. Norman Moore.



*Ryan Speirs and Hon Norman Moore MLC*

The ceremony, held at Technology Park on 3rd February, was attended by Ryan's manager Lewis Arndt, Jim Torlach the State Mining Engineer, MARCSTA providers, the mining press, and other guests. Ryan's induction training was provided by Tony Aveling and Associates.

Mr. Moore emphasised that as a former minister for training, he had consistently supported training as a key factor in safer mining. He noted that the standardised programs of MARCSTA are an excellent foundation for safety. If a miner is not competent he or she can't perform safely. Training provides peace of mind, competence to do the job effectively and ensures that a person returns home unharmed at end-of-shift or roster.

Mr. Moore also paid a tribute to the foundation members of MARCSTA, who worked on a voluntary basis to get the concept up and running. He added a tribute to Pat Gilroy, now CEO of MARCSTA, for his efforts over many years to improve mining safety, and emphasised his department's support of MARCSTA, a great success story in a short period of time. 50,000 certificates are a tangible highlight, he said.

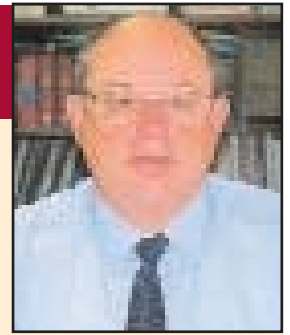
Pat Gilroy pointed out that training has emerged many times in recommendations made in mining accident reports, not just induction training, but continuing training to ensure worker and management competence. Pat noted that the mining industry in WA is known worldwide for its safety achievements, with underground LTIs now down to surface mining levels, which is "unheard of".

Greg Harris, chairperson of MARCSTA, completed the speeches by noting that MARCSTA now had QETO status, which means it can approve its own courses. He thanked Paul Petale and Associates for their assistance in achieving this.



*(L to R) Tony Aveling, Aveling and Associates, Ryan Speirs and Lewis Arndt, Boart Longyear. Liam O'Connor, Delta Print, our printer, in rear.*

## From the Desk of the State Mining Engineer...



Jim Torlach

A recent advice of a fatal accident in New South Wales has again highlighted the very serious risks attached to a commonplace hazard.

A new fuel tank had been fabricated for a grader at a small quarry operation. Diesel fuel (some 45 litres) was placed in the tank and the tank pressurised to test for leaks. The tank leaked or ruptured and fuel under pressure was sprayed onto hot metal and/or welding apparatus.

The manager of the operation standing in the vicinity was severely burned in the fire which erupted, and died of his injuries on the following day.

In terms of the immediate causes of this event, two issues are self evident:

- Pressurising any vessel which is not designed and built to take pressure creates a completely unacceptable level of risk.
- Under no circumstances should pressure (or heat) be applied to containers or vessels of any design where flammable material is contained in the vessel.

Fatalities and serious injuries have resulted from using oxy-acetylene torches to cut drums containing grease or oil, which is less flammable than diesel fuel.

Filling closed vessels with water before cutting or welding can still present a serious risk from a steam explosion.

Any closed container may present an explosion hazard if heat is applied. The risk level is high.

Standard safe working procedures for this class of work must incorporate the risk management approach to potential hazards inherent in the process.

The first Significant Incident Report issued by the Department in 1989 described how the application of compressed air to a heavy gear box to drain the lube oil off more quickly resulted in serious injury to a worker when the gear box ruptured.

A further critical dimension to work on closed vessels is presented when ANFO loaders (pressure vessel type) are sent for repair. A scrupulous check for any residual explosive is critical before any repair work is done.

## MARCSTA REGISTERED PROVIDERS

### PRIVATE PROVIDERS

Tony Aveling	Aveling and Associates
Tom Bateman	TRACMIN
Carl Berglin	TRACMIN
Dale Cocker (U)	Burnie TAFE
David Collins	D&S Safety Training
Joe Duyvestyn	Drillcorp
David Fitzgerald	Playground Inspections and Auditing
Helen Fleming	Strudwick HR
Ray Hargreaves	Aveling and Associates
Joe Knight-Smith	ITN Central West TAFE
Guy Lenoir	Switched Onto Safety
Bert Lundie	Baseline New Era
Michael McCudden	Roche Bros Pty Ltd
Sharyn McCulloch	Century Drilling, Queensland
Malcolm McFarland	IFAP
Nick McIntyre (U)	Aveling and Associates
Jeff Mathews	Safety Paradigms (Aust) Pty Ltd
Greg North	Mobile Skills Training
Darren Ridley	TRACMIN
Victor Roberts	Roberts Safety Training Consultancy
Gary Sharpe	Barminto
Shane Salt	Safety Resolutions
Brian Smith (U)	Barminto

Rennie Sterle	Kelpport Pty Ltd
Wayne Sullivan	Wayval Safety Consultants
Peter Tynan (U)	Tassmia Safety Training Services
Dave Watkins	Safety Skills Training
Chris Wilson	Management Consulting Services Pty Ltd
Amanda Youngman	Industrial Safe Pty Ltd

### COMPANY PROVIDERS

Reuben Barber	Macmahon Contractors
Peter Dowding (U)	JR Engineering Services Pty Ltd
John Fletcher	Newcrest Mining
Ashley Gilbert	Ausdrill Ltd
Ross Graham	NS Komatsu
John Joyce	Hampton Transport
John Lemon	Total Corrosion Control
Joe Maglizza	CSR Readymix
Peer Stareczek (U)	Great Central Mines

U denotes underground trainer as well. This list is current at the time of going to press but for further information contact Anna Verteramo at the Secretariat on Phone 08-9355 1400, Freecall 1800 678 554 or Fax 08-9355 1499.



## Who's Who?

**CHIEF EXECUTIVE OFFICER**  
Pat Gilroy

**CHAIRPERSON**  
Greg Harris,  
BGC Contracting

**VICE CHAIRPERSON/  
TREASURER**  
Terry Condipodero,  
JR Engineering Services Pty Ltd

**ADMINISTRATOR**  
Anna Verteramo

**INDUCTION**  
Ross Graham

**TRAINING**  
Joe Maglizza

**PROMOTION**  
Warren Claydon & Ashley Gilbert

**ACCREDITATION**  
Irene Ioannakis

**MARCSTA MONITOR EDITOR**  
Geoff Taylor

## TOP QUALITY MARCSTA PRESENTATIONS

*Congratulations to Rennie Sterle and Darren Ridley of Tracmin. On a recent induction course Rennie achieved 100% in the student evaluation on quality of presenter. On another course one student said of Darren: "Because the trainer enjoys doing it the enjoyment level is increased. It was almost fun."*

## MARCSTA Mission and Objectives

### Mission

To be acknowledged as the standard setter in the provision of safety related training to the resources and associated industries.

### Objectives

- To develop and implement safety training programs for contractors working in the resources industry.
- To promote improvements in safety standards in the resources industry.
- To monitor the changing safety and training needs of industry in accordance with the relevant statutory requirements.
- To enhance the common standards of general safety training excellence within the mining and resource industries.

## MARCSTA POSTERS

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

## MARCSTA Members

### FULL MEMBERS

Ausdrill Ltd  
Australian Raised Drilling  
Barmingo Mining Contractors  
BGC Contracting  
Brambles Ltd  
Brandrill Ltd  
Charles Hull Contracting  
Cook's Construction Ltd  
CSR Readymix  
JR Engineering Services Pty Ltd  
Macmahon Contractors  
Monadelphous Group Ltd  
NS Komatsu

### Roche Bros

Skilled Engineering  
Thiess Contractors  
Total Corrosion Control  
Westrac

### ASSOCIATE MEMBERS

Driver Training and Education Centre

This list is current at the time of going to press but for further information contact the Secretariat on 08-9355 1400, Freecall 1800 678 554 or Fax 08-9355 1499



## J R. ENGINEERING SERVICES PTY LTD

JR Engineering Services Pty Ltd (JRES) is a privately owned Western Australian based company which provides engineering, consulting and contracting services to the mining and resources industry particularly in the area of minerals processing.

JRES commenced operations in 1986 and now has offices and facilities located in Perth, Kalgoorlie and Olympic Dam (SA). JRES has had a consistent growth to the point where it has now successfully completed project works to the value of approximately \$600 million whilst maintaining a workforce of approximately 400 - 450 permanent personnel.

JRES is a service-oriented company with a proud history where "Pride of Workmanship and Loyalty" are qualities shared through all levels of the organisation. Coupled with this, JRES' commitment to providing a quality product whilst maintaining a safe system of work has proven to be the catalyst for its continued growth. It is this commitment to provide a safe system of work that has seen JRES continue its involvement with the MARCSTA induction training system.

JRES has identified "competency based training" as an important part



Year 2000 Apprentice Intake

L to R: Patric Bermingham, Michael Worthington, Joshua Riddle, Clarke Gill, Travis McIntosh, Nicholas McDougall, Jason Zagar

of its skills development program and as such endeavours to ensure that all personnel are correctly trained to conduct the duties required of them during their working day.

JRES boasts one of the largest apprentices training programs in the Goldfields' area. This program provides a means by which apprentices are trained in all aspects of their chosen trade. This training is further enhanced by carefully supervised exposure to the local

mining industry by way of apprentice sharing. The program provides for the apprentices to be allocated to a number of local mine based workshops or operations so as to undergo further skills training. The apprentices training program has now produced 87 apprentices over the past ten years. This has developed highly skilled trade personnel, leading hands and supervisors within the current JRES workforce.



## ANALYTICAL REFERENCE LABORATORY (WA) PTY LTD

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ARL (WA) offers a comprehensive range of analytical and sampling services to private consultants, the mining industry, government bodies and the general public.

### WATER AND SOIL TESTING:

- Analysis for contaminants such as hydrocarbons, pesticides, heavy metals, PCB's, cyanides & nutrients.
- Testing drinking water to Australian Health and Department of Environmental Protection guidelines.
- Process, outflow and bore water analysis.

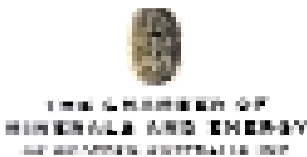
### OCCUPATIONAL HEALTH AIR MONITORING:

- Onsite monitoring conducted by ARL(WA) staff.
- Analysis of contaminants including asbestos, dust and crystalline silica, hydrocarbons, etc by X-ray diffraction, microscopy, GC-MS, gravimetric, chemical and instrumental methods.



**Theme:**  
***A New Century: A New Vision: A New Direction –  
for Occupational Health and Safety in the International Mining Industry***  
**3-8 September 2000**  
*Perth, Western Australia*

Organised by



Chamber of Mines of South Africa

***Minesafe is one of the world's major occupational safety and health forums for the international mining industry.***

Speakers will include representatives from the following national and international organisations:

- National Institute For Occupational Safety and Health, USA
- Ontario Mining Association
- Alcoa World Alumina
- AngloGold Ltd
- Health & Safety Executive, UK
- SHE Pacific Pty Ltd
- Clayton Utz
- Chamber of Mines of South Africa
- International Council on Metals and the Environment
- Department of Minerals & Energy WA
- International Labour Office, Switzerland
- Board of Certified Safety Professionals, USA
- Western Metals Ltd
- AON Risk Services Pty Ltd
- CSIRO Exploration & Mining
- Andersen Legal
- Massachusetts University of Technology
- Swedish Mining Association
- Beijing Medical University
- Australian National University
- Zinkegruvan Mining AB

Further speakers to be added progressively.

***Limited exhibition space remains.***

With the emphasis of the program focussed on the future occupational safety and health concerns of the industry and the training of its workforce at all levels to meet the challenges predicted, many of the national and international speakers will introduce new concepts and propose different approaches and solutions to their management.

The Organising Committee will receive abstracts until 31 March 2000 and the final program will be determined by the end of April.

Enquiries to Paula Sinclair, Minesafe International  
Locked Bag N984, Perth, Western Australian 6844  
Tel: (61 8) 9325 2955 Fax: (61 8) 9221 3701  
email: p.sinclair@mineralswa.asn.au

**Further information and draft program can be found at the website:**  
[www.mineralswa.asn.au/minesafe](http://www.mineralswa.asn.au/minesafe)



# SHARYN McCULLOCH



Sharyn is the Health, Safety and Environment Field Adviser for Brisbane based company Century Drilling Limited, and has been actively involved in the drilling industry for 12 years. Her current hands-on role takes her throughout Australia to remote locations such as Arnhem Land, the Tanami Desert and Lawn Hill. In addition to MARCSTA training, Sharyn runs company developed courses on Hazard

Observation, Working at Heights, Hand Injury Prevention on Mineral Rigs, and Safe Manual Handling Techniques for Mineral Rigs and Remote Driving Operations for Century's drillers, offsidiers, and supervisors in the field.

Over the years Sharyn has added to her "on the job" experience by completing numerous courses such as Train the Trainer and Workplace Assessor through the ADITC, Workplace Health and Safety Officer through the NSCA and various safety courses through IFAP.

Commencing with her family's company, Civil Resources, in the eighties, Sharyn worked her way up from a secretarial role to Supply Manager for Civil's fleet of 20 Reverse Circulation exploration rigs. Working for her father, Sharyn found herself doing her share of the "dirty work" including running parts to rigs in the middle of the night and even less glamorous jobs such as cleaning out a "driller's caravan", not the sort of job you'd volunteer for.

In 1993, Sharyn joined Western Deep Hole Drilling (now Drillcorp Western Deephole) in an operational role, which was followed three and a half years later by the position of Regional Manager for Pontil Pty Ltd in Mt Isa. Over the years Sharyn has worked in all areas of drilling company operations but has chosen to focus on occupational health and safety.

MARCSTA was introduced to Century's operations in 1998, and has since been adopted by some of the company's clients in the Northern Territory and Queensland. Recently, Century's Oil and Gas division has taken advantage of having an in-house provider by running some of their field crews through the program. Century chose MARCSTA above other generic programs due to it's practicality, industry focus and growing acceptance across Australia.

Sharyn will be presenting MARCSTA at various sites throughout Australia and at Century's head office at Wacol, Brisbane.

## Correction

In the graph for Lost Time Injury Frequency Rate shown in the December Monitor, the vertical axis should have been marked "Injuries per million person-hours"

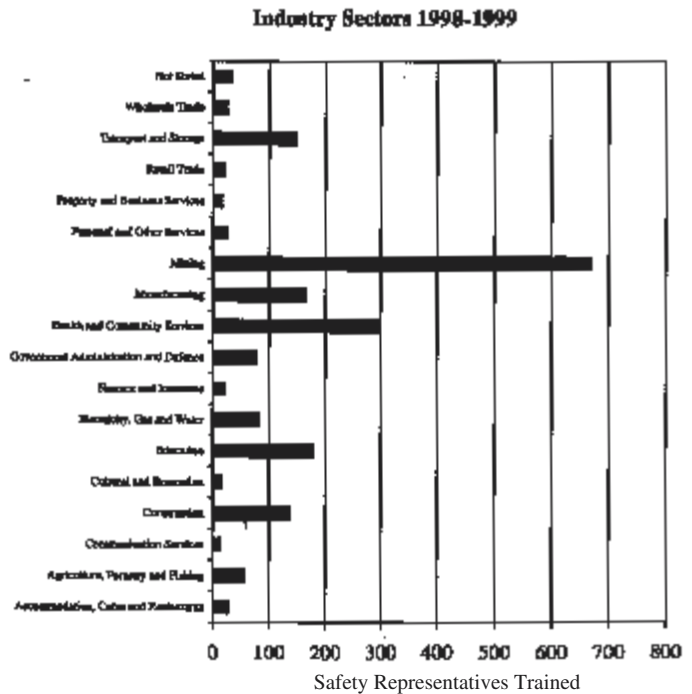
## SAFETY REP TRAINING TOPS IN MINING

Statistics provided to the Worksafe WA Commission on safety and health representative training for 1998-9 confirm the ongoing commitment of the mining industry to continuous improvement in occupational health and safety on WA minesites.

Attendance figures reported by accredited providers of safety and health representative training show that of approximately 200 representatives trained in 1998-9, some 670 or one third were employed in the mining sector.

For an industry with about 44,000 employees or 5% of the total workforce, this is a remarkable achievement.

There can be little doubt that this ongoing commitment to safety and health representative training is making a significant contribution to the remarkable improvement in safety performance achieved by the mining industry over the past decade.



# Conferences

Australian Gold Conference, 2020 Vision, Burswood WA. 10-12 April 2000. Phone: 08 9226 3280 Fax: 08 9226 1544

After 2000, The Future of Mining, Sydney. 10-12 April 2000. Phone 03 9662 3166 Email: conference@ausimm.com.au

Second Annual Australian Magnesium Conference 2000, Sydney. 30-31 March 2000. Phone: 02 8235 5300 Fax: 02 9290 3844

Minesafe International, Perth. 3-8 September 2000. Phone: 08 9325 2955 Fax: 08 9221 3701

## news and views...

### DUMPTRUCKS

*Mining Quarrying and Recycling* for January/February 2000 reports on Caterpillar, Euclid, Bell, Volvo and Terex dumptrucks.

### NORTH PARKES FATALITIES

*Australia's Mining Monthly* for February 2000 reports on investigations into this tragedy of last November. A cave-in caused a hurricane force air blast killing four men underground. The report by the internal probe, which is due out in mid-March, is private. The government DMR report is the first test of NSW's new special investigations unit set up by law last September. The unit is due to report in June.

### MINING HISTORY

From *The Bulletin* of 100 years ago comes this item of interest.

Biddy of Buller, who was in 1899 New Zealand's only female miner, died at 96 in that year. Mrs Goodwin, as she really was, worked as a miner until she was 93, when she complained that she wasn't feeling the woman she used to be!

## MEMBERSHIP AND

## ASSOCIATE MEMBERSHIP

Are you a company with employees on mine or other sites which require a MARCSTA induction? Consider MARCSTA membership. Do you provide services on site to MARCSTA members? Consider associate membership of MARCSTA. For full details of fees and benefits contact Anna on 9355 1400.

## Advertising

A limited amount of advertising is invited for the next issue. Please contact the Editor.

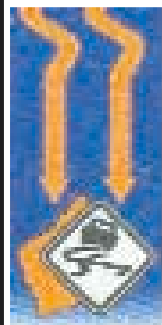
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