



an update from **MASHA** on **YOUR** Mine Rescue program

Issue #7 May 2009

Helping Vulnerable Workers

 The statistic did not surprise Vic Pakalnis, but to him it reinforced the decision to rebuild and strengthen the ties between Queen's University and Ontario Mine Rescue.

While lecturing first-year engineering students, the former Ministry of Labour's Eastern Region Director asked how many had experienced a lost-time injury (LTI), one in which they had missed more than a day of work.

Of the more than 700 first-year students, a staggering 15.2 per cent indicated they had suffered an LTI, said Pakalnis, who currently holds the Kinross Professorship in Mining and Sustainability at Queen's.

"These would be recent high school students who just started university," and presumably may have worked only for a few summers or after school and on weekends, he said.



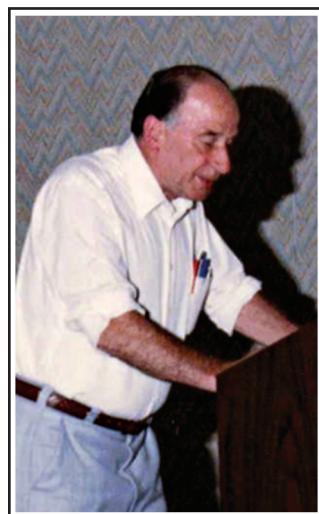
Today these mine rescuer trainees are Queen's University mining students, but tomorrow they may be leaders in Ontario's mining industry, so training them in mine rescue will pay a dividend in injuries avoided and lives saved, says Vic Pakalnis, who holds the Kinross Professorship in Mining and Sustainability at Queen's.

"It shows you that young workers are at extreme risk," he said.

The subsequent discussion indicated "there was a very poor understanding

of their rights and I'm not sure if all of these injuries had been reported to the WSIB (Workplace Safety and Insurance Board)." **Continued on page 2**

Eveson Recalls



When the mine rescue community gathers for the provincial competition next month, former

Former Senior Mine Rescue Officer Ron Eveson briefs judges at the 1983 Provincial Mine Rescue Competition.

Senior Mine Rescue Officer Ron Eveson may well be thinking of the first competition held almost 60 years ago. The 1950 competition for the Timmins area teams was to be held in McIntyre Park, but a heavy snowstorm forced a last-minute change of venue to the mine rescue station across the street and restricted the layout to a 40 by 20 foot area, said Eveson, then a mine rescue volunteer with Hollinger.

"The problem was a one-paragraph statement, given to the team captain upon completion of the field tests. The team was to travel through a fire door, take a CO test and return within a limited time.

"The emphasis was on good team procedures and the highlight was passing through a fire door, which incidentally was improvised by a man standing with an arm outstretched at the appropriate location," said Eveson, who

Continued on page 4

We need you!

If you have comments about the newsletter, or suggestions for future articles, please contact Susan Haldane at MASHA, (705) 474-7233 ext. 261, or susanhaldane@masha.on.ca



Mines and Aggregates Safety and Health Association

P.O. Box 2050, Stn. Main
690 McKeown Ave.
North Bay, Ont. P1B 9P1
PH: (705) 474-7233
FAX: (705) 472-5800
www.masha.on.ca

Helping Vulnerable Workers

Continued from page 1

The WSIB, various health and safety organizations including Mines and Aggregates Health and Safety Association (MASHA), have been focused on trying to reduce the incident rate involving vulnerable workers -- young workers and new workers.

The relationship between the university and Ontario Mine Rescue, a part of MASHA, should help achieve that goal, Pakalnis said.

During March, 2006 Queen's hosted the Canadian University Games and MASHA Mine Rescue was asked to assist with judging a mock mine disaster. Teams from across Canada gathered at this event and participants' feedback following the competition clearly indicated value in mine rescue training for university mining graduates.

Queen's and Ontario Mine Rescue had already decided to offer

Introductory Mine Rescue to a limited number of mine engineering students, and had OMR manager Alex Gryska lecture fourth-year and masters students on mine rescue and safety in 2008 and 2009.

Queen's students had taken the course in earlier years but the relationship had ended. Pakalnis and Gryska felt it was time to relaunch the program.

"I thought it would be very useful to the students to have an understanding of mine rescue," Pakalnis said, "both for the health and safety of the students themselves and because they will end up as mining engineers . . . responsible for the health and safety of others."

There was only room for 10 students in the April course taught at the university by Mine Rescue Officer/Consultant Wally Adler, "but we had far more students sign up for it than we could accommodate," Pakalnis said.

Preference was given to students going into underground mining and taking occupational health and safety, he said.

"The side effect is that we're building awareness in other students to be more safety conscious." And the strengthening relationship will help that.

"We're looking forward to a long-lasting collaboration on other things."

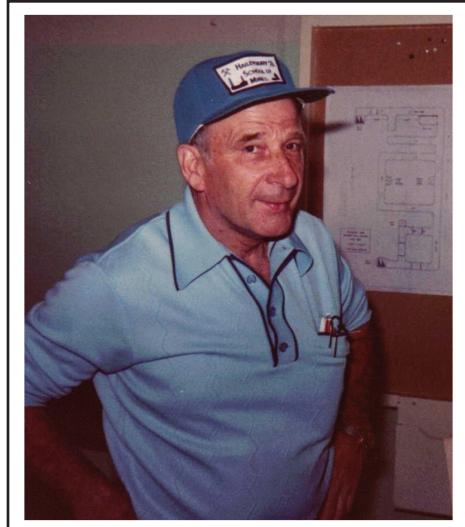
Pakalnis plans to monitor the side effects of mine rescue training and the on-going relationship by tracking the health and safety record of Queen's graduates in the workplace.

"I plan to track my class, not just the 10 in mine rescue training and not just those that get occupational health and safety training, but everyone," he said.

"We can track how all this will have an impact. I suspect it will have a very positive effect," said Pakalnis.

"After five years we should start to see a trend," he said, and that could lead to greater insights on how to reduce the injury rate of vulnerable workers.

Visionary and Innovator



Former Senior Mine

Rescue Officer Ron Eveson is not just remembered for his dedication to mine rescue, but also as a visionary and an innovator, particularly when it came to the BG174.

The four-hour respirator, the predecessor of the BG4, served as the workhorse respirator of Ontario Mine Rescue for almost 40 years. Eveson found a way to use the BG174 as a rescue breathing apparatus, extending its life to up to 18 hours.

He simply filled the breathing bag with oxygen, and then turned the oxygen cylinder off, when the user had depleted the oxygen in the bag, the cylinder was turned on again to

replenish the oxygen in the bag.

Eveson also devised a way to turn the BG174 into an emergency respirator to help casualties in respiratory distress. He taught mine rescuers to secure a facemask on the casualty and then force oxygen into the casualty's lungs by gently compressing the breathing bag.

Both techniques were incorporated into Ontario Mine Rescue training, and picked up by mine rescue services in Australia and South Africa.

His innovation extended to acquiring new equipment that others would have hesitated, such as the first thermal imaging camera, said Charlie Burton, supervisor of Ontario Mine Rescue.

"He saw a need for it," Burton said, and purchased the EEV which cost \$25,000. Now all mine rescue stations are equipped with thermal imaging cameras (the MSA) which cost about \$8,000 each.

Eveson, known in the mine rescue community across Canada, pushed for a national mine rescue competition. Such was his influence and determination that he succeeded in persuading his counterparts across the country and the mining industry to hold one in Nanaimo, B.C., in 1986.

Only Newfoundland and Prince Edward Island, which has no mines, did not attend, and Ontario tied for first with team from the Northwest Territories.

In the early 1980s, Eveson anticipated a shift in the role of mine rescue and started to prepare Ontario Mine Rescue for the changes that the Stevenson Commission into Ground Control and Emergency Preparedness would soon recommend.

The commission, established after the Falconbridge Rockburst tragedy in 1984 claimed four lives, extended the mandate of mine rescue to respond to all types of mine emergencies. But Eveson was already well on his way to changing OMR from a fire response organization to an emergency response service.

"Ron saw the future," said Burton. "He purchased all the early special equipment," including lifting bags, hydraulic spreader, bolt cutter, and rock splitter.

Eveson "did a pretty good job," said Burton, considering he had to get government approval, stretch limited financial resources, and earn the support of a mining industry suffering through an economic downturn.

Go ahead have a sip . . . of water

Ahhh! What could restore the body better than a cool drink after a mine rescue assignment?

Only a cool drink during a mine rescue assignment.

And thanks to Drager Safety Inc. Ontario mine rescuers could soon be enjoying a cool sip of water during hot, intensive assignments. Drinking water is an effective measure in preventing heat stress.

The National Institute for Occupational Safety and Health (NIOSH) in the United States, the approval agency in North America for breathing apparatus, is in the final stages of testing a hydration facemask designed and made by Drager.

If the mask is approved by NIOSH as expected later this year, Ontario Mine Rescue will purchase a limited number of team sets for use in the province's hottest and deepest mines.

Ontario mine rescuers field tested Drager's prototype design 10 times under the direction of Mine Rescue Officer/Consultant Bruce Hall, and offered



Go ahead have a sip. Drager Safety's new hydration facemask, the FPF 7000, connects to a two-litre CamelBak through a long flexible straw.



The new FPF 7000 (left), compared to the Panorama Nova facemask, has a larger field of vision, larger wiper handle, and of course, a straw for sipping.

several suggestions. Drager also asked South African mine rescuers to conduct field trials.

"Drager made all the changes we suggested before submitting it to NIOSH," Hall said.

The result is the FPF 7000, which provides better vision, and a larger, easier-to-use wiper handle than the Panorama Nova facemask, and most notably, an internal drinking straw with a one-way valve.

The straw has a quick-connect link to a long flexible straw and two-litre CamelBak, and is similar to the hydration system used by drivers in Formula One racing, "except this system uses a facemask," said Charlie Burton, Ontario Mine Rescue supervisor.

The CamelBak can be shifted to different positions depending on the wearer's preference.

"We tried it everywhere," the top of the BG4, the back of the BG4, the front of the mine rescuer and on the side attached to the belt, Hall said, noting that the best position varied depending on the task at hand.

But it's not the flexibility or ease of use that Hall and Burton like about the hydration system, it's the safeguard the system provides against heat stress.

An effective defence against dehydration and heat stress is drinking water, and drinking or sipping small amounts of water regularly during exertion to cool the body and replace fluid lost through sweat.

Soon To Hit the Presses

Clear a space on your bookshelf, or in your lunchbox, or your back pocket. The 12th and newest edition of the Handbook of Training in Mine Rescue and Recovery Operations, the Bible of Ontario Mine Rescue, will be available later this year.

The revisions, the first since 2001, have been completed and the book will soon be in the design stage.

The revised handbook, the first major revision since 2001, will update information on Selection and Training, Special Equipment, General Emergency Practices, and Underground Fires.

The revision process included input and guidance from the Mine Rescue Training Advisory Committee and the Mine Rescue Officer/Consultants.

The book was first issued in 1930 and has been used since to complement mine rescue training materials. It has an international, as well as national following.

Eveson Recalls Continued from page 1

now lives in Sault Ste. Marie.

Unfortunately for some teams, he said, mine rescuers seemed uncertain on how to open "the door."

"It was pushed, pulled, pushed up or knocked down, much to the chagrin of the person portraying the door, who happened to be the chief judge."

Eveson, who started his mine rescue career in Britain, went on to join Ontario Mine Rescue in 1953 as the MRO for Kirkland Lake District, and two years later was assigned to organize training in the developing Elliot Lake district from his base in Cobalt.

He made his first visit to Elliot Lake, "a few temporary stores and two gas pumps along what is now highway 108 and bordering on Horne Lake," in 1956. It was also home to 10,000 construction and mining contractors.

"Travelling into the area was difficult, due mainly to vehicle breakdowns, and a 10- to 12-hour trip from Blind River was common. Blind River . . . was the site of the nearest LCBO and Retail Brewery, a cause of much heartache."

MINE RESCUE ALL THE WAY

(a brief excerpt) By T.J. Boulanger

But our hero persevered and finally won / The respect of miners and bosses, everyone / He worked so hard and efficiently / That he became the nominee

For the new boom town of Elliot Lake / Where mines sprung up, even under a lake — The mine rescue station was a building new / With rocks and trees the only view

With a shortage of office space during the boom / His building served as the town courtroom / And visiting types from the department of mines / Stayed there in bulk, many, many times

So Ron worked hard on competitions / Even under these sparse conditions / He won so many that he diligently / Became the next head-honcho nominee



Ron Eveson, second from left front row, poses with other judges, including current Ontario Mine Rescue Manager Alex Gryska, first from left front row, at the 1979 Provincial Mine Rescue Competition in Timmins.

On his trip out in a mine company vehicle, Eveson was accompanied by mail bags and two injured men.

"One man had two broken legs, having been run over while stretched out against a building. The other man had also been hit by a vehicle" and suffered internal injuries.

A year later Eveson returned to Elliot Lake with his family moving into the new mine rescue station, which though it lacked windows, hydro and locks, also served as the courthouse, Boy Scout Hall, and meeting place for Alcoholics Anonymous.

"By the end of the first week, Cobalt was beginning to look good to the whole family."

Eveson and his family, however, persevered and his labours, particularly in training for competitions paid dividends.

Elliot Lake District teams won 15 of the 41 provincial championships in which they competed, and "became the Montreal Canadians of mine rescue," said the competitive Eveson, who found the value in competition to be more than just winning.

Teams got to watch each other and learn from each other; lessons were learned; standardization became essential; and companies, as well as mine rescuers, took pride in their deportment and achievement, he said.

"Our worst enemy is complacency," and competition keeps mine rescuers from becoming complacent, said Eveson, who left Elliot Lake in 1977 to become the senior mine rescue officer until his retirement in 1987.

One of his first decisions was to move Ontario Mine Rescue headquarters from Toronto to Sudbury, to be closer to the action.



As chief judge, former Senior Mine Rescue Officer Ron keeps a close eye on the Inco Creighton team at the 1979 Provincial Mine Rescue Competition in Timmins.

Welcome to Iran

It's a small mine rescue world.

Not that Alex Gryska needed reminding of that late last year when Iran called, inviting him to visit and share Ontario Mine Rescue's experience and expertise with officials there.

"I think what caught their eye was that we have a standard approach to mine rescue and safety," said Ontario Mine Rescue's manager, who in recent years has hosted visitors from the United States, Europe, Africa and Asia, and visited mine rescue services and functions in as many locations outside of Ontario.

"They don't have anywhere near the consistency we have," both in mine rescue services and in approach to safety, which has been left to mine operators, said Gryska, who accepted the invitation to lecture for three days in late February at Sharif University's Centre for Technology Studies on Kish Island.

Iran's mining industry is diverse. Though coal is a major resource, Iran also produces gold, iron, copper and other minerals. The industry employs approximately 100,000 miners in several hundred mines of various sizes and with different approaches to mine rescue and mine safety, he said.

"It's a patchwork there. Some mines use the BG4, others are not so advanced."

Topics covered included mine safety, rescue training, mine gases, fire hazards, electrical hazards and more, while the audience of approximately 20 was also as varied, including health and safety managers, firefighting and rescue response personnel, mining company officials, mining consultants and government officials.

"Representatives of the coal industry were very intrigued by some of the things we do," such as tag-in tag-out systems, emergency simulations and point-in-time evaluations, he said. "They're not happy with their safety performance. They recognize there is room for improvement and they want to do better."

The overall reception was "extremely positive," and not at all dampened by the need for simultaneous translations in lectures or question and answer sessions, Gryska said.

They had "a strong receptiveness to our approach to safety and a very keen interest in technology."



Hello KED!



Get ready to say hello to Ontario Mine Rescue's newest piece of specialty equipment – the KED, or the Kendrick Extrication Device.

This fall all mine rescue stations will be supplied with the KED, which when used in conjunction with a cervical collar, helps to immobilize a casualty's head, neck and spine in a neutral position, and prevent additional injury during extrication from a seated position or from a confined space.

Mine Rescue Officer/Consultants will be trained on the devices in the early fall, and then train mine rescue personnel in their regions during refresher training sessions. Ontario Mine Rescue is encouraging mines to provide a KED for their own substations.

The flexible KED, made of heavy duty vinyl-coated nylon, wraps and secures the casualty's head, back, shoulders and upper torso in a semi-ridged embrace. Colour-coded, sewn-in securing straps and snap-lock buckles allow for quick, easy use on a casualty and help provide vertical rigidity for maximum support of the spine, neck and head.

Adjustable, fold-back sides permit easy access to the casualty's chest, while built-in handles enable rescuers to get a firm grip on the casualty and KED as one unit.

The KEDs are durable and easy to clean, roll up for storage in a carrying case, that includes a neck roll, straps, and space for additional cervical collars.

Mark Your Calendar

Mark June 5 and 6 on your calendar for the 59th annual Ontario Provincial Mine Rescue Competition.

Windsor Salt, Compass Minerals Sifto Salt, and CGC (Canadian Gypsum Co.) will host the competition at the

**Windsor Expo Centre,
1508 Walker Rd. in Windsor.**

The event also marks the 80th anniversary of Ontario Mine Rescue which was created in 1929, following the Hollinger

Mine fire which claimed 39 lives the previous year.

Guests at the competition will be able to watch the event live from the audience area, or via a monitor with video feed.

The six teams in the competition will be the winners of the district competitions held May 7 and 8.



About the Mine Rescue Newsletter

MR newsletter is published three times per year by the Mines and Aggregates Safety and Health Association. The association is funded by mining and aggregates workplaces in the province, through the Workplace Safety and Insurance Board.

The information in this publication is accurate to the best of our knowledge. However, the association assumes no responsibility or liability for the accuracy or sufficiency of this information, nor does it endorse any product mentioned herein with the exception of those produced by MASHA.

Who's where at MASHA

Mine Rescue

Mine Rescue Officers/Consultants

- **Walter Adler, Sudbury**
Phone: (705) 670-5707 ext. 231
- **Wayne Baker, Kirkland Lake**
Phone: (705) 567-4606
- **Emanuel (Manny) Cabral, Sudbury**
Phone: (705) 670-5707 ext. 223
- **Duane Croswell, Thunder Bay**
Phone: (807) 344-8211
- **Pat Gauthier, Manitouwadge**
Phone: (807) 238-1155
- **Ernie Gulliver, Timmins**
Phone: (705) 235-4861
- **John Hagan, Onaping**
Phone: (705) 670-5707 ext. 234
- **Bruce Hall, Sudbury**
Phone: (705) 670-5707 ext. 235
- **Shawn Kirwan, Sudbury**
Phone: (705) 670-5707 ext. 222
- **Grant Saunders, Red Lake**
Phone: (807) 735-2331
- **Tim Taylor, Delaware**
Phone: (519) 652-9809

Head Office Staff (Sudbury)

- **Charlie Burton,**
Mine Rescue Program Supervisor
(705) 670-5707 ext. 229
- **Isabella Caron,**
Administration
(705) 670-5707 ext. 221
- **Alex Gryska,**
Ontario Mine Rescue Manager
(705) 670-5707 ext. 230

Communications Staff (North Bay)

- **Susan Haldane,**
Supervisor/Editor
(705) 474-7233 ext. 261
- **Ken Sitter,**
Technical Writer
(705) 474-7233 ext. 234
- **Nicole Poulin,**
Graphic Artist
(705) 752-5196



Mines and Aggregates
Safety and Health
Association

P.O. Box 2050, Stn. Main
690 McKeown Ave.
North Bay, Ont. P1B 9P1
PH: (705) 474-7233
FAX: (705) 472-5800
www.masha.on.ca