



# Link Line



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

Issue #16 December 2011

## Canadians to host IMRB 2013

### Mine rescue world invited to Niagara Falls

► **C**ircle October 2013 on your calendar – that’s when Ontario Mine Rescue (OMR) and its counterparts from across Canada will host the sixth biennial conference of the International Mines Rescue Body (IMRB) in Niagara Falls.

Alex Gryska, OMR manager, Malcolm Smith, a former OMR manager representing Saskatchewan, and Barrie Simoneau, responsible for mine rescue in Manitoba, extended an invitation to the mine rescue world at the close of the recent IMRB conference in Beijing.

The decision to allow Canada to host the event was confirmed and announced at the conference. Though Gryska serves as IMRB secretary, all three provinces attended to extend the invitation on behalf of all mine rescue organizations in Canada.

See “Sharing” Pg. 3



*It looks like fun with foam, but setting up a barricade to contain and direct the spread of high expansion foam can be a difficult, time-consuming task, one that got easier at Xstrata Nickel’s Nickel Rim South Mine this year.*

## Working faster, safer Innovative barrier like ‘shower curtain’

**J**oe Hinich, from Nickel Rim South Mine, Xstrata Nickel Sudbury Operations, has a mine rescuer’s point of view when it comes to mine rescue activities.

“My intent was to make the system work safer and faster,” said Nickel Rim’s safety and training process owner and mine rescue co-ordinator of his idea to develop a high-expansion foam barricade now in use at the mine and under review by other operating mines.

His new Hi-Ex Foam Barricade goes up “like a shower curtain,” said Hinich, albeit an industrial shower curtain but with an appreciable savings in time

and effort, and increased safety for the mine rescuers doing the work.

“It’s basically a Fabrene wall with an opening for the (foam generator) fan and an opening for mine rescuers, and some hooks,” said the 11-year Ontario Mine Rescue veteran.

“A traditional barricade at Nickel Rim South consisting of plastic sheeting, wire screening and tie wraps takes close to 45 minutes to put up . . . if we have all the materials in place,” he said, longer if the mine rescue team has to find and gather the materials.

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### We need you!

If you have comments about the newsletter, or suggestions for future articles, please contact Susan Haldane at WSN, (705) 474-7233 ext. 261, or [susanhaldane@workplacesafetynorth.ca](mailto:susanhaldane@workplacesafetynorth.ca)



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# Building a barrier with Fabrene, rope and D-nuts

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“I thought that was a very lengthy time,” Hinich said, plus there was the hazard of using bolt cutters to cut the screen, as well as the issue of tearing down, and possibly having to rebuild, part of a physical barricade to allow mine rescuers to check on the fire situation.

So last winter the mine rescuer set to developing a prototype barricade that would be safer, faster, and could be pre-packaged for ready use.

“I contacted GNT Mining Supplies in Sturgeon Falls,” and told them what we wanted, and they set to work, he said.

A few weeks later the prototype was ready to be tested at Nickel Rim South where development drift sizes are five by five metres wide.

“The first set up point was at an intersection and we found out that the barricade wasn’t big enough because I didn’t account for over break, but that was OK because we found out what worked and what didn’t work.”

The barricade is attached to the walls using eight anchor points, D-nuts attached either to anchor bolts or existing rebar. Since the rebar may be damaged by mucking or blasting, the anchor bolts despite requiring additional time to install make set up easier, Hinich said.

A rope threaded through the D-nuts up one wall, across the top of the drift and down the other wall, is used as an attachment point for the snap hooks, attached every two feet. The barricade can be hooked onto the rope, raised and then slid across like a shower curtain to be attached to the wall.

“I was able to put one up by myself,” Hinich said.

The prototype test led to several important modifications, not the least of which was an expansion seam to allow for those extra wide drifts. The latest version of the barricade can fit in drifts from five to eight metres wide. The openings for the generator and personnel are now sealed with Velcro, and marked with black and orange stripes to help stand out in the smoky darkness, he said.

Similarly, the left side of the barrier is outlined in bright red fabric to help orient the Fabrene during setup. Flaps have been added to the sides and bottom of the wall to improve the seal with the rock, preventing the foam from seeping out.

The new barricade, which has been used in training but not under emergency conditions yet, has been erected in the test drift in 21 minutes by a five-member team, he said, less than half the time for a traditional barricade.

The barricade has earned attention and was shown to the Mine Rescue Technical Advisory Committee for evaluation and approval, Hinich said.

“I will continue to look for ways to improve the safety and efficiency of the methods used in mine rescue operations and encourage other members to do the same,” he said.

“Improvements like this will help us achieve Zero Harm.”



The left side of the barricade is outlined in red to aid in set up.



The barricade hangs like a shower curtain and is easy to open.



Openings are marked and sealed with Velcro.



Ready to go.



*Raising the Flag -- Wang Zhijian, Director General of the Mine Rescue Command Center of SAWS of China, passes the International Mines Rescue Body flag to Canadians Barrie Simoneau, Malcolm Smith, and Alex Gryska, who will co-organize the next IMRB conference with other Canadian mine rescue organizations in October 2013 at Niagara Falls.*

## Sharing Vision, Sharing Knowledge

**Continued from page 1**

Ontario, Manitoba and Saskatchewan will take the lead in organizing IMRB 2013, but it will be in consultation and with the participation of the other organizations, Gryska said.

Planning is already underway on the conference with the theme of “Sharing Vision, Sharing Knowledge”, and a call for papers is expected in the spring. The event will include field visits to and tours of major Canadian mining operations.

Excluding keynote speeches more than 40 papers were presented in Beijing including topics ranging from Virtual Reality Application in mine rescue to the Pike River Disaster in New Zealand. Emerging rescue technologies and equipment such as portable refuge stations, modern rescue drilling techniques, digital holography application to rescue, and thermal physiology during emergency escape, were also discussed.

Approximately 600 delegates from 22 nations, including the United States, South Africa, Australia, United Kingdom and Germany attended this year's conference. Six nations -- Austria,



*Mine rescue organizations representing more than 20 nations met at the fifth biennial International Mines Rescue Body this fall in Beijing.*

Mongolia, Russia, Ukraine, Viet Nam and Zambia, were accepted as new members.

The IMRB was created in 2001 to promote mine rescue at an international level and to improve mine rescue knowledge and practices by supporting innovation and global cooperation. The organization meets every two years. Previous conferences have been held in Johannesburg, South Africa; Sydney,

Australia; Nashville, Tennessee; and Ostrava/Prague, the Czech Republic.

Presentations from the Beijing conference will be available shortly on the IMRB website – [www.minerescue.org](http://www.minerescue.org). Presentations from previous conferences are currently available on the site.

Further information on IMRB 2013 can be found on the event's website – [www.imrb2013.ca](http://www.imrb2013.ca) – as it becomes available.

# BG174 emergency procedures return for use with BG4

An old innovation is making a comeback at Ontario Mine Rescue.

BG4 Emergency Procedures are included in the latest (2011) edition of the Mine Rescue Handbook and are being taught to a new generation of mine rescue volunteers. But any volunteers experienced with the Draeger BG174 may recall them.

The procedures, which extend the oxygen duration of the breathing apparatus, cover emergency situations involving entrapment, a team member in distress, using the BG4 as a rescue unit, and the gradual loss of oxygen.

“We originally developed those procedures back in the late 1970s and 1980s” for the BG174, and are now applying them to the BG4, said Charlie Burton, supervisor of mine rescue.

“We know these procedures work,” he said, but with the adoption of the Draeger BG4, which began in Ontario in 2003, the procedures needed to be updated and reviewed.

The original procedures had been developed by former Senior Mine Rescue Officer Ron Eveson, and mine rescue officers and equipment technicians John Hallows and John Guthrie on the BG174 years after that apparatus had been introduced. Those procedures were adopted by other mine rescue organizations that recognized their value.

Following the introduction of the BG4 to the mine rescue world almost 10 years ago, Draeger was asked repeatedly about the emergency procedures but “they would only say the BG4 is approved as a personal breathing apparatus,” Burton said.

Since then other jurisdictions including Australia, New Zealand and South Africa have reviewed and re-introduced the emergency procedures for the BG4, which led Ontario to follow suit, said Burton who does not expect them to be frequently put to use.

During the past eight years, there were no incidents in which the procedures would have been used had they been approved, he said.



*The new BG4 emergency procedures date back to the days of the BG174.*

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