



Liquidation of Emergency

Flooding

Kuban.
Territory
of bravery

They Were The First Who Came to Rescue

Water level was rising quickly.
Hundreds of people were waiting for help.
Urgently... At that very moment...
Till it is not too late...

Jubilee

Boundless Brotherhood

Twenty years ago they were the skeleton staff of professional search-and-rescue service, which has become a foundation of rescue services in Emercom of Russia

Search- and -rescue service of Emercom of Russia – 20 years old!

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Under Ground & On Ground

The Miner's Day has been celebrated in our country for more than 60 years already (the first celebration was in 1948). On the last Sunday of August all miners have celebrated their professional holiday. Our mines rescuers have also received congratulations. It seems like Mines Rescue Services joined Emercom of Russia not so long time ago, but they have already become an integral part of the Ministry, having enlarged the brotherhood of the firefighters and rescuers.

Not without a reason one of the first visits of the new Head of Emercom of Russia was a trip to the miners' city Novokuznetsk. Mr. Puchkov and the governor of Kemerovo region Mr. Tuleev laid the foundation stone of National Mines Rescue Center, where starting from 2015 more than 10 000 miners and mines rescuers from Russia and abroad will have trainings and refreshment courses. It will be a complex of different buildings with an approximate territory 12.5 ha – frankly

speaking it is like small borough with essential infrastructure. And according to the plans – it should be the best in the whole world.

The largest facility of National Center will be the training center which will include theoretic and computer classrooms, conference halls and Virtual Reality System platforms where with the help of computer technologies emergency situations can be simulated and different methods of saving people can be practiced.

The other important facility of National Center – is Technological Center, where miners and mines rescuers will be able to work on skills applied in emergency situations and fires in close to reality conditions. For that purpose the training fourmeter depth underground mine will be built. It will be possible for 40 people to train simultaneously. Moreover, The Russian National Fire-Fighting Research Institute will be placed in Technological Center, where scientists will carry out researches on new methods of

liquidation of emergency consequences and fires in underground mines. The opening of National Center will allow to create absolutely new system of preparedness for miners and mines rescuers, that will help to improve safety of miner's work and to save their lives and health.

Mr. Tuleev has highlighted: «Mining industry in all times was, is and will be a special art that should constantly be learned from the entire world, in order to prevent emergencies».

So, it was quite reasonable, that the delegation of our mines rescuers together with the Head of Mines Rescue Services Department Alexander Sin, in 1 week after this event went to Canada to study the experience of creation of volunteer mines rescue teams and methods of their trainings.

As for me, before this business trip I could not get rid of the song that was in my head: «Sky is blue all over Canada, slanting rain between the birches, so similar to Russia...»*





This bridge is decorated with flags, which symbolize those nations who live and work in Sudbury



«...but yet not Russia»*

The sky in Canada appeared to be blue and there were quite enough birches. Rain remembered about itself a couple



Candys Ballanger-Michaud

times, but didn't spoil neither weather nor mood. In whole the weather was good. And people...

It was really nice to meet such people. It was because of their kindness, sincerity, sociability. They are quite, smiling and confident about the future. But one large difference is – nearly all mines rescuers in Canada are volunteers. If to be exact – miners, who have passed mines rescue trainings.

So, Ontario province. Sudbury, Mines Rescue station. The Mines Rescue Station itself is a part of Workplace Safety North Company. And the vision of WSN is: «Every worker, home safe and healthy»

«We are sure that the level of injuries on workplaces can be not only decreased but can be on the road to zero» – claimed with confidence CEO of WSN Candys Ballanger-Michaud.

There are no coal underground mines in Canada (the most dangerous

from the point of accidents), there are only open-pit mines. Salt, nickel, zinc, gold – are the main minerals that are extracted in underground conditions. The leading position in extraction is taken by uranium, but it is under strict control of the government. All the rest underground mines in Ontario are under control of WSN and in other provinces by other similar organizations. By the way all of them are provincially legislated and under control of the Ministry of labor.

The activity of this company is based on as people say «on three whales»: consulting, auditing and training. Playing the role of an expert, WSN helps the owners of mines to find a solution how to decrease the level of injuries. This is about trainings on Hazardous materials, risks evaluation and emergency preparedness, examination of ventilation systems, occupational hygiene and etc., in

* Translator: Famous Russian Song «Over Canada», sang by Alexander Gorodnitsky



Canada Mining Facts (2009)

- Canada produces 26 metals and 32 non-metals including coal.
- Canada has 81 underground, 147 open pits and 9 solution mines.
- Mining employs 306,000 workers or accounts 1 in 50 jobs.
- Average yearly earning in mining \$70,200 (CAD)
- Canadian companies operate more than 350 offshore mines.
- Total mining exports \$132 Billion
- Canadian mines are safe.

Canada Mineral Production (2008)

| Commodity | Canada | Percent |
|-----------------------|------------|------------|
| Uranium (t) | 6,000 (2) | 8,822 (2) |
| Potash (1,000 t) | 11,400 (1) | 6,400 (2) |
| Nickel (10,000 t) | 262 (2) | 279 (2) |
| Cobalt (t) | 6,964 (2) | NA |
| Titanium (10,000 t) | 900 (2) | NA |
| Pt Group (kg) | 21,277 (1) | 17,900 (2) |
| Aluminum (100,000 t) | 6,120 (1) | 6,800 (2) |
| Diamonds (1,000 ct) | 4,809 (2) | 16,476 (2) |
| Chrysolite (10,000 t) | 279 (2) | 429 (2) |
| Gold (t) | 225 (1) | 200 (4) |
| Copper (10,000 t) | 60.4 (2) | 154.2 (2) |

Canada Mine Rescue Facts

- Mine Rescue is Provincially Legislated
- Each Province establishes its own mine rescue regulations
- Some Provinces have centralized (government) programs others are responsibility of the mine operators
- All provinces have a volunteer system

Ontario Mine Rescue - Who We Are

- Workplace Safety North.
- OMR in existence > 80 years.
- Established after Hollinger Mine Disaster.
- Servicing 40 underground mines in Ontario.
- Service provider to Newfoundland and Labrador.
- Done work in Finland, Turkey, Iran, China, Colombia, Saudi Arabia, Bolivia etc. *

short – every issue on prevention of emergencies and safety.

The board of directors consists of 9 persons – they are the representatives of different industries, where products and services of WSN are needed. WSN has approximately 3800 clients, this is about 124 000 employed workers in the mining, forestry, printing and other industries. That is a reason for WSN to have well-qualified specialists, experts and trainers who should all the time improve their knowledge. Today there are about 78 employers & experts from different spheres that should know 2 languages – English and French.

WSN provides service approximately for 40 mines in Ontario, and also serves mines in Labrador and Newfoundland.

There are some companies in Canada which operate mines in other countries and eager to unify safety requirements. The key point here is to work according to the legislation of the country.

For example, there are specific requirements for building mines rescue stations. The financing part and amount of essential equipment are strictly determined. The number of trained rescuers is counted. There is also a hand book of training in mines rescue and recovery operations (local mines rescuers call it «The Holy Bible»). Also the legislation regulates the duties of coal operators, in particular the procurement of mine rescuers with specially equipped training premises

and announcing about any category of emergency. According to the legislation every mine should be able to provide the first respond to the emergency before the arrival of mines rescuers.

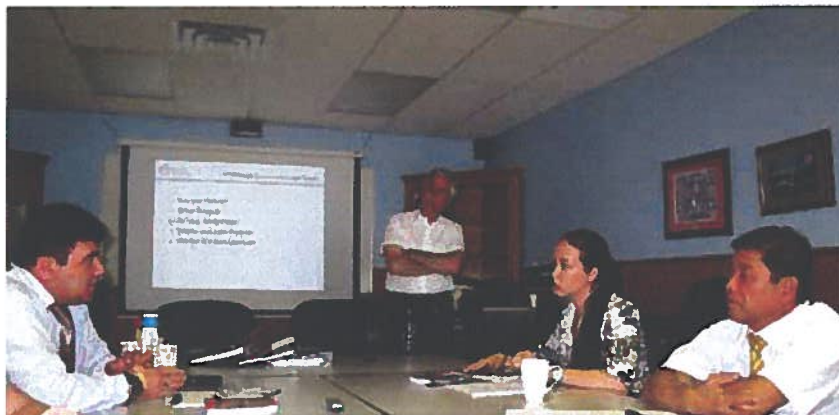
We had a chance to make sure that it is really so when we came to the «Nickel Rim South Mine», «Xstrata Nickel».

Safety like the way of life

Imagine such a situation: banquet hall, about 400 mines rescuers, the emcee, before he will begin his speech tells everyone where are the emergency exits located and which way to go in case of an accident. Can you imagine the reaction of people if it happens in our country? At the best case everyone will smile. But in that situation no one smiled, everyone seriously nodded, looked around and thanked emcee with applauses. And only after it the banquet begun...

Frankly speaking for the first time ubiquitous safety issues was even a little bit intrusive. For example the poster at the entrance of «Nickel Rime South Mine»: «Let's work safely!». But then I understood that it was because of our Russian negative attitude to slogans remained after the Soviet Union.

There the culture of safety and society is quite natural. And moreover it is a reason to be proud of your country.



The Head of the Branch of the Emercom of Russia in Kemerovo region Mr. Arutyunyan (on the left) and the Head of Mines Rescue Services Department of Emercom of Russia Mr. Sin are discussing the presentation of the managers of WSN



Jim Lundrigan



The board with the names of the mines rescuers on duty

Again I would like to give an example of the corporate culture of «Nickel Rim South Mine»: if the working crew work without injuries and incidents at the end of the year they will get acknowledgement, the company headquarters will present them with one short working shift, celebration dinner and company jackets.

We came to this mine on Friday and noticed that all workers were wearing red t-shirts and shirts. Anticipating our question, Operations Superintendent Jim Lundrigan told us that such uniform shows a kind of support to the decrease of injuries' level.

One of our final astonishments was Jim's answer to the question: could they extract more than it

had been planned. «What for? – sincerely surprised the operations superintendent. – Everything was calculated in accordance to the planned amount of extraction – technologies, capacity of the machines & safety measures. If we extract more than we have planned it will become unsafe.

But it wasn't the end of the surprises. When we were descending into the mine to the level – 1400 meters, the former head of the Ukraine Mines Rescue Services Pertsev Alexander told us that it was his first time when he had descended into the mine without a self-rescuer.

As for me it was my first time in the mine. But the specialists have clearly understood everything. But it

is a topic for discussion in specialized magazine.

Since it was not so long time ago when the law on fire-fighting volunteers' teams was passed and besides the issue of volunteering has become quite popular in our country I myself was interested in the subject of mines rescue volunteers'.

To this point the presentation made by the Manager of the Mines rescue station Alex Gryska was rather useful.

«I am proud...»

«Motivation – asked again Alex. – I think the most important motivation is a pride to be helpful to people & your colleagues. Believe me, it is more than money».



«Nickel Rim South Mine»





Mines rescue competitions. Warming up before the start



It is really not about money – one dollar per hour of working shift, with an average salary about 70 thousand dollars per year. But in case of liquidation of emergency consequences, utilization of respiratory protective equipment, the bonus that is equal to the three monthly salaries is paid. But because of their safety approaches that happens quite rare.

For the last five years the share of fatalities is 2,6 cases per year. (I wouldn't like to compare it with our statistics – it is offensively and scaring).

The beginning of mines rescue services in Canada is dated back to 1927–1928. In 1927 on Hollinger mine was a great fire. About 39 people died. Although the mine was quite contemporary for those times, non-compliance of safety measures was a cause of the tragedy. Since there were no mines rescuers, they had to call for American mines rescuers from Pittsburg (The USA), who finally extinguished the fire.

After this event the decision to establish mines rescue service was taken. The target of it was – firefighting, and in the previous

century in the beginning of the 80's the duties of Canadian mines rescuers were enlarged and they have become responsible for nearly all kinds of emergencies.

Nowadays there are about 850 volunteers in Ontario. And 75 technicians.

The requirements to volunteers are rather strict. – tells Alex Gyska. – For the beginning the candidate should pass medical test. There is a list of activities that volunteer should be able to do and after the medical test it will be clear what activities candidate can perform. As a practice test candidates



The first level. Preparations to the rescue works



The second level is watched by the spectators on screens



are trained in smoke –filled rooms and etc.

Introductory course takes about 40 hours (5 days). Every year the refreshments courses are organized (8 hours 6 trainings days in a row). Preparedness program (utilization of mines rescue equipment) is 3 days (24 hours) long.

Besides the theoretic courses we also evaluate the skills of work in different simulated situations, train how to work with hazardous materials, we have first aid trainings, firefighting course and search-and-rescue patterns.

There are special courses for mine supervisors. The duration of a standard course is 2 days (16 hours).

For experienced volunteers there are special trainings with a high standards. For the beginning it is a test on knowledge and demonstration of the skills in different situations.

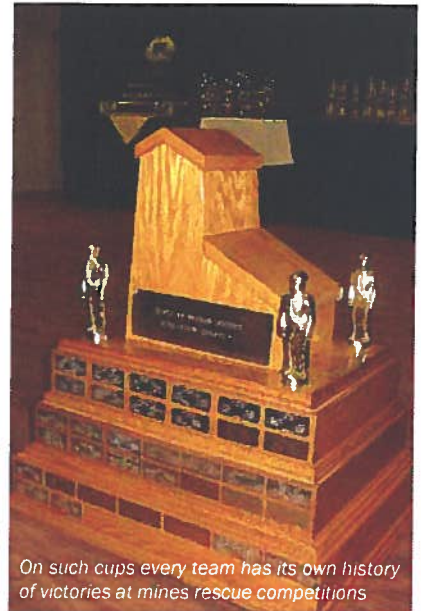
And of course mines rescue competitions – where the main goal is to simulate as many situations as possible and it should be very close to real conditions. By the way this year you will also get an opportunity to witness such competitions, which will be held in the operating mine.

Next day we went to the competitions. Of course the mine didn't work that day (here you can notice the attitude of the owner of the mine to

safety). The atmosphere was tensely-festive. There was a small exhibition of mines rescue equipment at the front of the mine site, rather many kids (participants came together with the members of their families).

After the judges had evaluated the processes of preparation of the teams to the rescue works, all spectaculars went to the hall and continued to watch the competitions on screens.

The managers tried hard to complicate the tasks for competitors. On the way to injured men they met closed doors, smoke, and fire (actually it was fire simulation, because it is an operating mine, but the amount of used firefighting foam was large). After the first aid and recovery of the injured men, the rescuers continued to compete on surface. The situation of rescue injured person at a high angle was simulated. In one moment I thought that the teams were performing too slowly, and I incredulously said to my colleagues that our Russian rescuers would be able to do the same work faster. For this Alexander Sin replayed to me that the goal of the task was to rescue injured man as safely and correctly as possible but not as fast as possible. And the competitors had achieved that goal successfully, even in my unprofessional point of view.



By the way, I had recognized some of the competitors, they acted in the film that we were shown at «Nickel Rim South Mine». In that film volunteers were asked to answer the question: why had they become volunteers? The common sense of their answers was: «I am proud to help people in a critical situation... my family is proud of me... I can rescue...»

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