Editor's Note: The Wangjialing coal mine accident drew new attention to China’s accident-prone mines. Despite a substantial reduction in accidents from 2008, over 2,000 miners died last year. How can China avoid such disasters? Global Times (GT) reporter Li Yanjie talked with Dave Feickert (Feickert), an advisor from New Zealand to China’s Bureau of Coal Mining Safety, on this issue.

GT: It’s been reported that there were traces of flooding, and the accident could have been avoided. How do you evaluate China’s coal mine safety measures?

Feickert: The rescue of the miners has been an amazing feat of courage and engineering, but we need to remember those who have lost their lives. If you are constructing a coal mine, you need to have a very good system monitoring the conditions around it, especially when you know there are old mines, because if you leave a coal mine abandoned, it will fill with water.

So what happens in Western countries is to drill holes vertically in the ground and monitor water levels in the area around the new mine project. Underground, miners can monitor the water seeping in and check its chemical contents. This gives you information about the water flow, but from reports, it seems that this wasn’t being done at the Wangjialing mine.

The second thing is that you need to find all the plans of the mines around your project. You need a very strong safety assessment which includes the information about the whole area around the new project.

Every new project in China must have a safety assessment certificate from the State Administration of Work Safety (SAWS). But in developed countries, the responsible mining company conducts a safety assessment every day. This second part does not always happen in China.

At Wangjialing, workers reported that there were traces of flooding, but the managers said keep working. The managers were pushing the project too fast, which is bad for safety and economics too.

When water comes into mines, managers should evaluate how serious it is, and the work should be stopped promptly, because it takes some time to get miners out of deep coal mines. I think 280 people were working in Wangjialing coal mine at the time, and over 100 also got out before the trouble, leaving 153 behind.

GT: China has laws and regulations on workplace safety, but coal mine accidents keep happening. Why?

Feickert: Risk assessments in China are often too technical. In developed countries, the risk assessment process continues day by day. All employees take part. Workers will look for water and other dangerous factors.

There need to be changes in safety organization in China’s companies, irrespective of ownership. Currently, managers are primarily responsible for production and safety.

Managers have the duty of supervising both production and safety, but if they are forced to choose production, I believe this is what happened in some accidents, probably including the one at the Wangjialing coal mine. They were reportedly trying to get the mine into production as soon as possible, as it is a large mine important for the energy needs of the country.

The authorities should form a safety tripartite at mine or factory level, which stays in daily contact, with the manager at the top supported by a government SAWs inspector and a worker safety representative.

The manager is supported by the owner (government or private company), the inspector is supported by SAWs, and is independent, and the worker safety inspector is supported by the union.

This triumvirate then carries out risk assessments very quickly.

In the event of danger, such as in Wangjialing’s case, the indications of possible neighboring water in an abandoned mine, the worker safety representatives and front line managers on site immediately inform both the responsible manager and the government inspector. The three parties meet to discuss how to solve the problem. If it is judged to be serious, the men should be taken out of the mine immediately and action is taken.

If the manager objects to withdrawal of the men, the government inspector must have the necessary power to act. In the developed countries, this is what happens, whoever the owner is.

In China, the government usually choose production. I believe the State Council needs to discuss how to introduce modern risk assessment into the high-risk industries. We are happy to help.

GT: You once said Chinese coal mining safety experts are too often inclined to try to find an engineering solution to all problems. Why?

Feickert: When I first came to China and discussed why accidents happen, my Chinese colleagues sometimes said it is because there is not an engineering solution to the problem.

But take an automatic system, monitoring methane and gas, which uses computers. To keep computer monitoring going, you have to train people to do the maintenance work and read the information. The human factor is very important. You can’t just think in engineering terms.

Everybody, from chief engineers to miners at the bottom, must be involved. There are always engineering solutions to problems but safety organization must include everyone. The managers and engineers are leaders but the miners are their eyes and ears.

GT: Mining accidents used to be common in developed countries. Is this high-risk phrase just a necessary stage of development? When can the goal of zero accidents be achieved?

Feickert: It’s true that many countries have experienced this, but China can learn from developed countries’ experience and avoid coal mine accidents as much as possible.

Some mines in my country, New Zealand, didn’t have any accidents last year – not just no fatal accidents, but injuries at all. China can definitely reach zero accidents, but when is uncertain. I believe the State Council needs to discuss how to introduce modern risk assessment into the high-risk industries. We are happy to help.

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