For David Feickert's memory

from David Creedy

Here is my brief profile:

Dr David Creedy is a Chartered Engineer with 39 years of experience in underground gas control, coal-mine methane (CMM), coalbed methane, institutional and energy projects.

He spent his formative years at British Coal as Head of the Methane Group after which he moved to Wardell Armstrong. He has worked mainly in China for the last 13 years initially as a consultant and then with Sindicatum to manage its coal-mine methane business. He is a Bureau member of the UNECE Group of Experts on CMM and was a co-author of the UNECE best practice guidance document on CMM capture and use.

I have looked though some 7 years of email communications with Dave and reflected on the many discussions we had over a Costa coffee in Dongzhimen, Beijing. The following extracts illustrate his dedication and strength of character. There was always so much to do and Dave's passion to make a difference meant that we had few moments to talk about personal and everyday matters. He was matter of fact about his illness, he would talk about his Chinese treatment and I believe he had hope. His inner spiritual strength was evident. I will miss Dave and the world will miss a champion of work safety. The poems included in this note show some of his personal side.

Dave was a great advocate of worker inspectors and of the application of practical risk assessment (RA) in workplaces.

His words:

"I'm a great supporter of worker inspectors being part of the RA team and also for the face teams to do their own RA at the beginning of each shift, phoning the results to the control room and having them built into the managers plan, in a feedback process - into which the supervisor/deputy is also linked...

My impression from mines in China is that there is considerable variation between companies. The State Council (Premier's Cabinet) in 2010 issued guidance calling for all high-risk industries to carry out monthly RA's in their existing plants and mines. Up to then the law required new plants and mines to get a RA Certificate from SAWS, the ministry.

The other aspect Chinese high-risk industries need is practical advice on how to do RA - with on-site case studies and a *who-does-what* exercise in the team. Some companies have tool-box talks led by supervisors but a standard method of involving workers and their safety representatives is not established. Neither is the relationship between the worker inspector and the government inspector established".

Dave felt strongly for a long time that the safety triangle of worker, inspector and manager is pivotal in preventing accidents as illustrated in a letter that he wrote to the New York Times (unpublished) in 2010.

New York Times

15.4.10

Dear Editor,

Four years ago, I responded to the coverage of the Sago mine disaster in your pages. With reference to the Massey Upper Branch mine disaster, those of us observing from afar know - along with MSHA Secretary Joe Main - that this accident should not have happened. Why it happened is now the subject of an inquiry, as is the Wangjialing mine flooding in China. Our group of western coal mine safety advisers have been working with the Chinese government and coal industry to improve the terrible accident rate there. China has cut its fatal accident rate in coal mines by over 70% in the last seven years as a result of enormous effort, but there is much work still to be done. What the Massey and Wangjialing accidents show yet again is that unless there is an effective 'safety triangle' between managers, government inspectors and workers it is very hard to eliminate such disasters. Government inspectors - seen from Europe, Australia and New Zealand - need clearer powers in both the US and China to withdraw miners in event of extreme danger. Similarly, as at Wangjialing, where the workers knew about the water seeping in, miners need to have a clear power to call in the inspector, if the manager is not acting in favour of safety. They need a safety representative with statutory powers to do so, as in the EU, Australia and New Zealand. And this safety triangle needs to be embedded in a risk assessment approach which works bottom up as well as top down.

kind regards,

Dave Feickert

Coal mine safety adviser

Dave states what he believes should be said in public – his reason was to ensure change for the better and to promote institutional learning from mistakes

Dave Feickert: Mine safety policy failed us

Published in the NZ Herald

By Dave Feickert

5:30 AM Tuesday Jul 12, 2011

The Pike River tragedy has called into question mine safety in New Zealand. Photo / Mark Mitchell

Yesterday, the Pike River royal commission started its main hearing sequence.

It is likely to be a sobering experience for New Zealanders as the information stream begins, first on the background regulatory issues and later on the rescue strategy and the causes of the first explosion at the Pike River mine. We are a small country and the shock of losing 29 of our sons has been severe indeed. The men at Pike River came from all over the country and were welcomed into the tight-knit West Coast community of mining folk.

As a fellow mining consultant, a former British mines inspector told me after he heard of the explosion, "It is always worse when it happens in your own country". Bob Stevenson was Principal Inspector of Mines in the UK and now works as a mining consultant in high-risk countries, Russia and Turkey especially.

I work in China and my colleagues there, in the State Administration of Work Safety which is responsible for safety and health regulation in the thousands of coal mines, among other industries, expressed their profound sympathy.

They have suffered from too many mine explosions, and were incredulous that it could have happened to us. "We are a developing country, with some backward small and large older mines," they told me, "but you are a developed country. We have even been to New Zealand for safety training."

China now has a whole group of modern mines with state-of-the-art technology and excellent safety systems in place that Pike River did not have.

The industry has a very large number of gassy mines, with high methane emissions as the mining process moves forward. Most of the larger of these mines drain the methane and use it in methane engines to produce electricity or heat for the mine or to sell on to the national electricity grid.

Usually these projects are funded under the UN Clean Development Mechanism, which encourages reduction in carbon equivalent emissions (methane has 20 times the global warming effect of carbon dioxide) and win carbon credits. Western "green" banks are making a fortune in China investing in these projects.

In New Zealand, we don't seem to know what to do with our methane, whether it comes from cows or from our mines.

Why successive governments have not brought dairy-waste-to-methane conversion technology, using similar technology to Chinese coal mines, into the carbon credit system is impossible to fathom. Maybe it is because we have become so famous at leaving all these decisions to the market. Well, leaving the development of solar water heating to the market has been an almost total failure in our country,

whereas China's managed market has seen this technology spread like wildfire across city and country rooftops alike in just six years. China is now exporting this to Germany.

The tragedy at Pike River will come to be seen as another market failure, I believe. The professional mines inspectorate and the regulatory system that we inherited from the UK, along with Australia, was abolished in the 1990s, along with the worker safety inspectors, elected by the men from among experienced miners. The industry was moved to self-regulation.

Pike River represents a spectacular failure of self-regulating companies in a high-risk industry. Why we allowed an economic theory of business competition to persuade us that competing companies would co-operate on mine safety is something else I will never fathom.

The tragic fact is that the small band of companies involved in mining did not co-operate to replace abolished regulations with voluntary codes of practice.

Why we ever expected they would beats me. And the Department of Labour's chiefs stood aloof, as the business theory said they should, saying officially, we do not give advice. They merely set the regulatory framework, which was as flimsy as a peony flower in a howling southerly.

At Pike River, the management and men were on their own. When 31 men were caught in that terrible blast, only two managed to escape.

They were near the single usable exit the mine had, and one of these heroes dragged his mate to safety. It is time we dragged our country into the 21st century and caught up with best practice in China, let alone Queensland; for there are other folk to save, and not just in mining.

* Dave Feickert is a mine safety adviser to the Chinese Government and coal industry and is currently in Beijing.

By Dave Feickert

Comments by readers

1. mchaggis (Hibiscus Coast)

09:06 AM Tuesday, 12 Jul 2011

Very good post, highlighting some very likely failures in our third world mining industry, in comparison to other countries.

If safety was compromised, it would have been in the name of money, to save a dollar or two. In my opinion, in mining and other dangerous industries, it's a company's responsibility to make sure the health and safety of the workers involved is paramount above all else.

If the company concerned is not prepared to take safety measures seriously, then it has to be closed down, by force if necessary. In a first world country, there's neither a place nor a reason in any industry where the health and safety of employees should be threatened.

I wish the Pike River families and colleagues well and hope they will be able to eventually find

some peace of mind and closure from the Commission of Inquiry's investigation into the tragedy. It's the very least they deserve.

Hopefully from this dreadful tragedy, some positive action will evolve, giving a wake up call to all industries to drastically improve the safety conditions for its workers, so as to avoid another tragic event as that of Pike River Coal Mine.

2 likes

Juice (New Zealand)

09:06 AM Tuesday, 12 Jul 2011

Excellent and informative column. NZ has a certain arrogance when it comes to bringing in overseas experts and ideas when we think we know better. Didn't Bill English recently reduce the number of mine inspectors in the budget? In so many areas of the NZ construction/mining industry its all about cost and how cheap can it be done, as opposed to making a quality product–see leaky buildings. NZ needs to raise its game and standards across all areas.

Jack (New Zealand)

09:06 AM Tuesday, 12 Jul 2011

A very forthright article that many in this country will not want to accept. Clearly our simplistic political mantra that the market knows best and that market failure does not exist is a dangerous myth, with negative social and economic consequences.

Ned (New Zealand)

09:52 AM Tuesday, 12 Jul 2011

If safety is left to business it will be bottom-line driven. Every safety recommendation will be undertaken to its lowest possible extent as this will be cheapest.

Chris (New Zealand)

09:52 AM Tuesday, 12 Jul 2011

We don't know what caused the explosion at Pike so we don't know whether a different regulatory regime would have made any difference. Let the Commission do its job and stop speculating – Mr Feickert sitting in Bejing should wait with the rest of us for the outcome of the Inquiry.

Ethan (New Zealand)

09:52 AM Tuesday, 12 Jul 2011

Oh surprise surprise, NZ caught cutting corners? for a few extra bucks we compromised safety. Well nothing new there except we wouldnt have found out unless so many died. Sad.

Erhufan (New Zealand)

10:27 AM Tuesday, 12 Jul 2011

Ned

If safety is left to business it will be bottom-line driven. Every safety recommendation will be undertaken to its lowest possible extent as this will be cheapest.

I disagree. Several industries, such as the oil industry, have impressive safety records, achieved through voluntary codes of practice and driven by corporate image: if you are perceived as irresponsible, for example BP in the Gulf of Mexico, it can impact your bottom line. Good safety is often good for business.

Le Fox (Auckland City)

10:38 AM Tuesday, 12 Jul 2011

Give the miners some credit, as I don't think they would have gone to work, unless they felt safe. They knew the working conditions at the time, not you or me. You can have all the safety measures under the sun working, but just one ever so simple act can have dire consequences.

The old sage (New Zealand)

10:38 AM Tuesday, 12 Jul 2011

The resource management act has to hold its hand up here as well.

Juice (New Zealand)

10:38 AM Tuesday, 12 Jul 2011

@ Erhufan. Could it be that our ACC scheme has a role to play here. In the UK or the U.S. Pike River would get the pants sued off them?

Dave was never frightened of publishing his strongly held views in China.

Wenzhou a grim wake-up call for railway safety

Global Times | July 28, 2011 21:26

By Dave Feickert

The whole country realizes that the High Speed Train (HST) accident represents a critical juncture in China's development. HSTs are a pre-eminent sign of modernization, as the infrastructure required, the technical skills needed and the financial cost involved are normally only found in developed countries. To have such a serious multi-fatality accident so early in the development of the system threatens the very viability of the whole program of HSTs.

International observers and the Chinese public alike are watching to see how the government responds and how openly this disaster is dealt with. This is not just the country's netizens but every rail passenger of the present and future, every manager in high risk industries and every family member of the injured who will demand proper compensation.

I believe that China needs to begin with the analysis made by the former Minister of the State Administration of Work Safety, Li Yizhong, a few years ago.

He had calculated that China was in the middle of its "accident-prone" period, through which the UK, Germany, the US and Japan had passed in turn. Each of these periods was shorter for that country than the one country before it and he asked the guestion, "How short can we make our accident-prone period?"

China has shown the world that it can deal with natural calamities, like the Wenchuan earthquake, and very bad industrial accidents like the Wangjialing mine flooding last year, very effectively. The country has very well organized rescue services and a determination on the part of the top leadership to "save the day" by recovering as many people as possible. Excellent as this may be, the risk assessment and prevention strategies followed are still weak, especially in the high risk industries.

The State Council itself recognized this when last July it published a set of detailed instructions for high risk industries. These required all plants and mines in these industries to carry out monthly risk assessments, not just risk assessments for new projects. They are required to do other critical work as well. The railways should now be included.

In China's accident-prone coal industry, such policies have already had an impact, with official fatal accident rates coming down from a very high 6,995 in 2002 to below a projected 2,400 this year. This, while coal output has increased over that period threefold, is an 80 percent reduction in the death rate. There is still a long way to go for the industry as a whole but some modern mines are now as good as their international counterparts.

The cost of prevention of accidents is much cheaper, too, than the final cost of disaster. For example, in Australia one mining fatality can cost a coal company between A\$3-10 million (\$3.3-11 million), made up from a compensation claim of \$750,000, a fine of \$300,000 to 1,300,000 in addition to lost production. In New Zealand, the Pike River mine explosion last November, which killed 29 miners, has already cost \$11 million in recovery attempts, will cost over \$8 million for the public inquiry, tens of millions to support the families of the victims and will cost over \$100 million to recover the mine, if that is possible.

China does not yet have a unified compensation and rehabilitation system. Much is left to local government. Provincial governments have begun to act, as did Shanxi over coal mine fatalities in 2005 when it raised compensation for families to 200,000 yuan (\$31,020).

In many developed countries, compensation is largely determined by the courts, as victims and their families sue the responsible operator. This can lead to massive payments, as in the US.

A better way is to adopt a no-fault system, as we did in my country, New Zealand, in 1974. All accident victims receive loss of income payments and a lump sum goes to the families if someone is killed - at work, on the roads or on a mountain. Some might think that such a scheme would be too expensive for China, yet in New Zealand it has been shown to be both cheaper and fairer than the litigation system it replaced.

The author is a coal mine safety adviser and Friendship Prize winner in 2009 for his work on coal mine safety. opninion@globaltimes.com.cn

Personal e-mail (please treat names as confidential) – illustrates Dave's widespread activities and dedication to helping coal miners improve their health

From: Dave Feickert <dave.feickert@gmail.com>

Date: Tue, Jan 4, 2011 at 12:31 AM Subject: Pneumoconiosis Madam Li

Dear Qinghua and Yanping,

As we agreed before Christmas after the discussion over lunch, with Madam Li, we would see if it would be possible to take various actions towards a joint co-operation on the problem of miners' lung disease. I agreed to explore a possible visit to the special hospital for lung disease patients in the UK, which was funded by the Coalfields Regeneration Trust. Qinghua agreed to see if we could visit the special hospital in Hebei. I have now finished my holidays and am ready to do this, before leaving for NZ on 20 January.

I have been working with an international network of experts to see what we could offer by way of support to China's existing programmes dealing with lung disease.

- 1. The first attachment is the summary by Nick Tovey a UK based director of Wardell Armstrong, following contributions from a wide variety of experts. This document has been sent to Stepehn Hughes MEP in the European Parliament, to discuss with the European Commission. Should Madam Li Shuqing be able to visit the UK then Mr Tovey would be able, with colleagues to make a presentation on this, perhaps at the hospital or in the Wardell Armstrong office in nearby Sheffield.
- 2. The second attachment is a press release from MSHA in the US about their action programme. I also attach a briefing note that I wrote for the officials of the US State Department who I met in February last year in Washington. This itemises the black lung issue. While I am in Beijing I would happily visit, with Yanping, the US Embassy counsellor responsible for liaising on safety and health and coal industry issues.
- 3. Regarding the US I will attach in my next email some photos taken by Earl Dotter of miners suffering from black lung/pneumoconiosis in the US. These are very graphic.
- 4. As you see from my forwarded email from Horace Xu of GE Research, they have been working with Shanghai lung disease hospital on an automated method of reading miners' lung x-rays. This is very important, as reading x-rays is very time consuming and China has very many cases to deal with.

Finally, concerning funding for different parts of the programme. Stephen Hughes is discussing this with the European Commissioner. There may also be some money available in the UK and this could be discussed by Madam Li during her visit. The German colleagues have also discussed joint work, in addition to what they are already doing, as well. There is, of course, the foundation in China, of which Madam Li spoke to us over lunch in December.

I look forward to discussing these issues with you soon,
kind regards,
Dave Feickert
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Dave had a worldwide reputation and continued to respond to requests despite his illness.

Wed, Oct 5, 2011 at 6:59 PM, Go Funai < Go. Funai@undp.org >

Dear Mr. Feickert:

I received your contact information from Mr. Zhang Weidong of UNDP China, when I inquired about international experts on coal miner safety. At UNDP Ukraine, we are exploring an effort to build resilient cities in eastern Ukraine, where the short- and long-term impacts of coal mining have affected thousands of families. We seek to improve the overall health of mining communities—not just improve the safety inside of mines—by involving mining companies, emergency responders, and government and health officials in planning processes.

While this project is still being developed, I was wondering if you would be available and interested in joining our efforts of conducting risk assessments in the next several months. I would appreciate an opportunity to further discuss this project with you and look forward to your response. Thank you for your time and consideration.

Best,

Go

Dave replied Wed, Oct 5, 2011:

Hello Go,

Thanks for your email and I am very pleased that the UNDP is doing this work.

I am familiar with the situation in eastern Ukraine and have been there on an appraisal visit when I was trying to persuade the EU to put in some funds to the same objective.

Unfortunately you have caught me at a time when I have to decline an active role as I'm here in Beijing this time primarily for Chinese traditional medicine treatment for liver cancer.

This has made me feel quite a bit better but it means that I must concentrate on this first. I have had to put aside any thought of being a key expert in the EU-China programme, which is about to start.

However, I am happy to help in any way you might consider, bearing in mind that I travel between China and New Zealand mainly these days. I have family connections from my first marriage in eastern Ukraine and know their situation quite well. This is an extra motivation to help

I can, of course recommend others who could help more actively. kind regards,

Dave

This note sent out by Dave to colleagues with similar interests illustrates Dave's role in raising interest and finance to support essential mine safety training. This plan eventually evolved into a 4-year EU-China project *Occupational Safety and Health in High-Risk Sectors* which is ongoing.

Mine safety training in China – the next phase (draft) 19/11/2008

Over the past six years there have been international exchange projects for safety and health training between China and Japan (underground foremen), the United States (managers, engineers, inspectors and rescue brigadesmen), New Zealand (managers, engineers production worker/safety representatives), Australia (managers and engineers) and the EU (managers and engineers).

SAWS sees the training of its deputy managers and chief engineers as critical to bringing the large and medium sized mines up to international standards. These mines will form the medium and long term basis of China's coal industry. There is no question that when a manager or chief engineer returns to his mine, he can implement changes which he has learned about from another country. There is a new general aspect about training for senior staff as well: risk assessment. This has been used in EU countries and in Australia since the 1990s and increasingly in other developed country coal industries. Some Chinese mines are good at hazard identification, but they have only just started to gain a practical understanding of risk assessment and management as a working system. This development is supported, importantly by the ILO conventions and the new Code of Practice for safety and health in underground coal mines. China had an expert on the drafting group.

The second aspect of the acute safety situation in the Chinese industry is in the small mines. Many thousands of these have been closed and will stay closed. This has been the single most important measure in bringing down China's fatal accident rate. However, the government plans for 10,000 to remain, given the demand for coal. A programme needs to be designed for these mines, if China is to reduce its overall accident figures to below 1,000 a year in the next few years. Training in this more chaotic part of the industry is not easy but certain things could be tried.

Therefore it is proposed that SAWS and the supporting countries find a way of co-ordinating their efforts to:

- 1. Extend risk assessment techniques throughout the large mine and medium sized mine sector, building in at various stages, reviews of practical progress at mine and company level;
- 2. Develop pre-training, using DVD and adullt learning techniques for the often illiterate poor farmers who become miners in the small mines and guarantee that they receive at least one on-the-job training day before they join a production team. More could be done, if the right package is produced and a supporting network of Village and County Authorities, local authority and SAWs inspectors and companies is created.
- 3. Accident reporting and analysis we should offer some technical workshops for SAWS staff and the larger companies on this, as the information base we all have access to is not complete enough to provide trend analysis or to mesure the effectiveness of various technical and training programmes.

While the target must be zero accidents and zero lost time injuries, the immediate term target can be the reduction of the toll of fatal accidents to below 1,000, within three years.

Dave could turn his hand to poetry - but still with a health and safety theme.

On vacation in Patea

We waited, my brother and I

Expecting anytime his head

To pop out from the boiler's mouth.

We had headed South

To this huge factory shed

Lying the length of the sky In Patea.

Our father, the Inspector,

Clad in his boiler suit

Had clambered inside,

His face with quiet pride

In a job; for him, it was beaut

To protect the industrial worker

In Patea.

A light tapping we heard

From deep within.

The huge monster, silent;

The manager, confident

The machine could soon begin

To roar again with dread

In Patea.

On vacation from school

We learned to respect

The lessons of safety.

His authority was mainly

In experience, checked

In the light of the law

In Patea.

Out came his head, dirt

Around his cheeks and sweat
On his brow. Crawling
Onto the floor, standing,
He said calmly, in neat
Phrases, short and curt
In Patea,
"Corrosion, there is
On some of those tubes.
Repair them please!"
For, if we are to ease

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Away from the safety blues

Clear action is *all our* biz

In Patea.

18 February 2007

Dave's end comment to the poem: "The best safety training I ever had was when, as a kid, our father took my brother and I with him on factory visits during the school holidays".

Mentions of another series of safety seminars initiated in China by Dave in an email to me. He was very persuasive and difficult to say no to.

Subject: Safety and Health seminar for Yitai - 18-22 June, Inner Mongolia

>Date: Thu, 31 May 2007 07:20:55 +0100

Hi David,

We are doing a follow-up to the New Zealand two-week course we ran in

April. We had a SAWS-organised group from three large SOEs. Phase two will be with Yitai Group in Inner Mongolia. My two UK colleagues are not able to make the dates now and I wondered if you would be available to join us for perhaps one or two days in the week of 18-22 June. It's short notice, I know, but I was thinking of your work on methane in particular. Ideally, we were going to do something on mine safety management in the UK and I will still cover some of that.

Kind regards,

Dave

The Yitai seminar inlouded an Introduction of the concept and benefit of independent trade unions to China – only made possible by Dave's diplomatic skills, charm, commitment and that the Chinese authorities trusted him.