Business Leaders' Health & Safety Forum

ZERO HARM WORKPLACES

April 2013

Pike River

Lessons for directors and senior leaders

There are lessons from the Pike River tragedy, learned at the cost of lives, which must be taken on board by other senior leaders and directors if New Zealand is to prevent similar events occurring in future.

To capture these lessons, the Forum asked prominent figures involved in the Pike River Royal Commission, and in implementing the Commission's recommendations, to share their insights with our members at two seminars in May 2013.

"An effective business culture, and an effective health and safety culture, starts with the board"

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Nicholas Davidson

Lawyer Nicholas Davidson QC, who represented the families at the Royal Commission, gave his opinion on how Pike's board, managers and workers "never saw it coming" because they failed to ask the right questions, recognise the risks and respond appropriately to warnings.

Who can you rely on, and who can rely on you?

Nicholas talked about the fact that in business, we place a huge amount of reliance on people to do their jobs properly, and they rely on us to do the same thing. But how often is that trust and reliance misplaced? How can we know who we can reply on?

At Pike River, two of the three planks that people rely on to support good workplace safety – unions and regulators – were effectively missing, he says.

There was a union operating at the mine. But its influence had been severely undermined by New Zealand's industrial legislation and the antagonistic attitude of the company's management. The union was weak and only acted once to take the men out of the mine – despite the obvious dangers.

The second plank that offered no real support was the legislative environment and the regulator, he says. Over two decades New Zealand's mines inspectorate service had become so run down it was effectively neutralised by the time of the accident. As a result, the "umbrella of protection" people might expect the regulator to provide simply didn't exist.

That meant the only plank left supporting safety at the mine was the company, and as events showed the company couldn't be relied on either.

"Management never identified a major explosion as a potential risk"

Who was up to the job?

By the time of the accident Pike River was well behind on its production targets and was under considerable financial pressure. And for a variety of reasons there were a number of people working at the mine that really weren't up to the job.

For example, at the time of the explosion, the person running the hydro-mining operation at Pike River was George Mason. Mr Mason had never been a hydro-miner and was not properly qualified to run this potentially dangerous process. He had been out of the mining industry for 12 years, and had previously been criticised in reports into two separate mining disasters at Australia's Moura mine in 1986 and 1994.

Mr Mason should never have been in this position, Nicholas says. He shouldn't have been appointed to it by Pike River's management. And the company's directors shouldn't have accepted assurances Mr Mason was "qualified" for this pivotal job without probing further to confirm he really was up to the task.

Nicholas Davidson QC

"World-class" safety systems never properly used

Nicholas says that in his view one of the things that stood out about Pike River was that on paper its safety systems were world-class. It also had a well-qualified health and safety manager. No doubt this would have been reassuring for the board and the management team.

Trouble was, these safety systems were never properly used. For example, there were more than 1000 incidents reported at the mine – some of them serious and including gas issues. However, only five investigation reports were ever completed. The vast majority of incident reports were closed off uninvestigated.

The company's Health and Safety Manager Neville Rockhouse didn't have the support he needed from management to do his job properly. In fact, Mr Rockhouse was so over-worked that one of his colleagues told the Royal Commission she used to worry that he might have a heart-attack any day.

Reliance on "form" over substance

Nicholas says the company's focus on forms and form-filing masked the fact that action wasn't being taken about the serious problems written about in the forms. This reliance on form over substance meant the company's safety systems were of no real comfort to the board of directors at all.

Hazards at the mine were never properly assessed. Management never identified a major explosion as a potential risk. The worst case scenario was one they never thought about – let alone prepared for.

Warning signs were not treated seriously enough. In a report to the board weeks before the explosion, Mine Manager Doug White described gas spikes as more of a nuisance than a risk.

The role of directors

Nicholas says Pike River's directors argued that the role of a board is to engage the right people to run the company, then to let those people get on with the job. They likened this arrangement to the political separation seen in most western countries between Church and State.

But the board charter of most companies requires directors to actively work to ensure management is doing its job, he says. The Royal Commission was also clear that directors can't take a position that once they've hired suitably qualified people they have no further responsibilities. "They remain in the game," Nicholas says.

The directors said workers and managers had opportunities to talk to board members about their concerns at social events, but never took up this opportunity. However, Nicholas says it's not enough for directors to rely on people to bring problems to them. Boards need to be hunting out the issues themselves, to be critically assessing the situation and to seek independent advice where needed.

Directors need to get down into the "pit"

Nicholas says that for boards to be able to get to grips with the issues, some directors must have operational knowledge. This is particularly important in highly technical and risky environments like underground mines. However, none of Pike River's directors had experience working in or managing an underground mine. That meant they did not know the questions to ask or how to assess the information on safety that they were receiving.

Being a director is about leadership, Nicholas says. And leadership requires directors to "get down into the pit" – to question and probe, and get independent advice where necessary so they can be sure they really know what's going on.

The Pike River directors never did this in an effective way – which is why they never saw the accident coming.

Dr Kathleen Callaghan

Dr Kathleen Callaghan, an expert witness on "human factors" for the Commission, used what happened at Pike River to highlight common failures by directors and senior managers in relation to workplace safety.

Lessons of the past were forgotten

Kathleen began her presentation with the sobering comment that, on one level, there was nothing new to learn from what happened at Pike River. The factors that led to the accident were all issues that should have been identified and managed – but they weren't.

The real message for directors and senior managers is how easy it is to forget the lessons of the past, and how terrible the consequences can be if we do that.

Kathleen described what happened at Pike River using the "Swiss Cheese" accident causation model developed by renowned psychologist James Reason. She overlaid this with an understanding of "human factors" science.

Human factors are things to do with the job, the individual and the organisation that can affect behaviour and work, and therefore safety. These human factors, and the way they inter-relate, need to be taken into account in a good safety management system. That way companies can build safety systems that are tolerant of human error, along with other risks.

The Swiss Cheese model shows how most accidents can be traced back through four levels of failure: organisational factors; supervision; preconditions; and unsafe acts.

The steps to prevent accidents are shown in the model as a series of barriers, like slices of Swiss cheese. The holes in the cheese represent the weaknesses in each part of the system. When there are holes in every slice and these holes line up, the organisation's safety systems have failed and there's potential for accidents to happen.

Whether an accident happens or not is then a matter of chance or "Sod's Law", Kathleen says. The bigger and more numerous the holes, the greater the chance of an adverse event.

Pike River's safety defences were full of holes

By the time of the accident at Pike River, the company's "organisational" and "supervision" slices of cheese were riddled with holes, she says. For example, there was a lack of standard operating procedures and a rapid turnover of senior executives. Supervisors failed to enforce the rules and even violated the standard operating procedures themselves.

There were also significant holes in the "preconditions" slice. Pike was a start-up mine in a challenging environment. There was worker inexperience and the company went on to suffer considerable cash flow problems.

As for the "unsafe acts" slice, there are always holes in this slice in every organisation, Kathleen says. That's because it relates to the actions and decisions of people on the ground – and one thing we know for certain is that people will always make mistakes.

Put this together and it was clear that there were gaping holes in Pike River's safety defences. The risks of an accident occurring should have been obvious to anyone who took a close enough look.

Forum members at the Christchurch seminar

So what are the lessons for managers and directors in other high risk industries?

Kathleen says one of the biggest mistakes organisations make is to focus most of their incident prevention activities on the last slice of cheese – preventing unsafe acts. You are never going to close all the holes and turn this into a solid slice because no matter how many training or behavioural safety programmes you run, people are always going to "stuff up", she says.

Error is a normal characteristic of human behaviour and safety systems need to be designed to cope with this. People make mistakes every day. We get distracted and we break the rules. Realistically, the scientific evidence shows us that there is not much we can do to stop this at the level of the individual.

As a result, there is a growing realisation that organisations need to focus on the other three slices of cheese, and design systems that are tolerant of error.

Leaders should focus on the factors they alone can influence

In particular, senior managers and directors should focus on the top two slices – "organisational factors" and "supervision" – because they and they alone have the power to influence these factors. They need to make a personal commitment to identify every hole in these two slices of cheese, and to eliminate or minimise these holes.

Kathleen says managers and directors should think of their companies as being constantly under attack from Sod's law. Sod is random and unrelenting, and is constantly firing arrows at the company's safety defences in the hope that one day the holes will line up, the arrow will pass through, and an accident will happen.

Sod has an inexhaustible supply of arrows and energy – which is why safety requires constant vigilance, she says. We are never going to be like Sir Edmund Hillary and "knock the bastard off".

Senior managers should never make the mistake of thinking that when they start off their slices of cheese are made of cheddar. In reality many holes are present from day one, particularly in the preconditions slice.

> "The risks of an accident occurring should have been obvious"

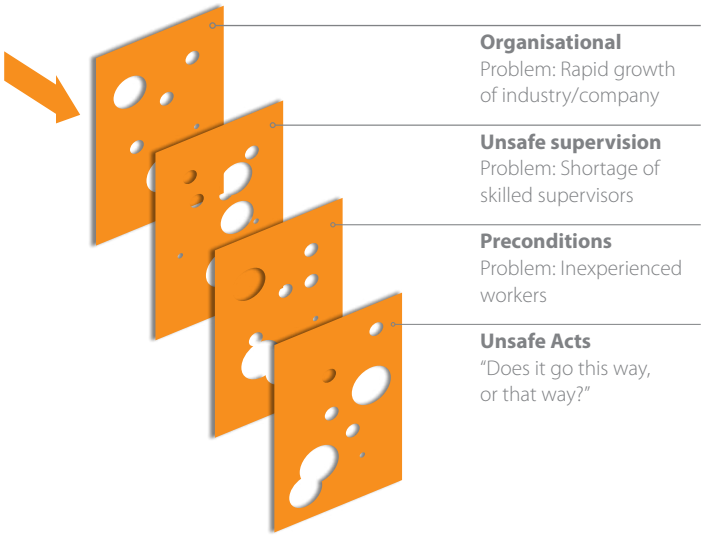
> "There were gaping holes in Pike River's safety defences"

Three things to remember

So in summary Kathleen says senior executives wanting to learn from the lessons of Pike River should remember three things:

- Focus on the areas where you have most control – the upper two slices of cheese.
- CEOs and directors must make a personal commitment to eliminate or minimise holes in the upper two slices. They should want to make cheddar, not Swiss cheese.
- Never forget that Sod never rests.

Your accident waiting to happen?



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Ralph Chivers

Former Institute of Directors Chief Executive Ralph Chivers outlined the board's role in safety, and new guidelines to help directors fulfill their duties.

How boards set the tone and hold management to account on health and safety

Ralph says the Pike River Royal Commission placed a considerable amount of responsibility for the tragedy at the door of the company's board of directors.

The Commission found that the board didn't have the skills or experience it needed to assess assurances from management that all was well at the mine.

So what's required from directors and boards when it comes to health and safety?

Chivers says the board's role on health and safety is the same one it plays across all areas of corporate governance. That is to hold management to account and to make sure that good decisions are being made.

Skills and experience

For that to happen, boards must have a high standard of skill and expertise, he says. But generic business experience isn't enough. There needs to be directors around the table with expertise in key areas of business operations.

No one on the Pike River board had experience in underground coal mining, Chivers says. That meant the board didn't have all the capability it needed to ensure management was doing its job properly.

If necessary directors need to upskill themselves, or get outside advice so they can make informed decisions.

High standard of care

Directors are also expected to display a high standard of care in their work. It's not enough to turn up, open the board pack at the table, sign off a few things, eat the cucumber sandwiches and go home, Chivers says.

Directors need to ask searching and insightful questions informed by the board's collective experience and wisdom. They can't take things on face value. Their job is to pull apart the issues so that good decisions can be made.

Individual responsibility

Directors should listen to prudent advice, but they should test this advice in the context of what they know about the company.

They have an individual, as well as a collective responsibility, Chivers says. They should listen to what other directors have to say, but ultimately they must make up their own minds and take responsibility for their own decisions.

Spokesman for some Pike families, Bernie Monk

Risk management and culture

Directors are also responsible for ensuring that risk management is effective in an organisation, Chivers says. This means more than ensuring a risk management framework has been developed. They need to make sure this framework is effective and is working as it should.

An effective business culture, and an effective health and safety culture, starts with the board, he says. They set the tone. If you've got good things pouring in from the top, the benefits will flow right down through the company. But if you've got poison pouring in, the opposite will happen.

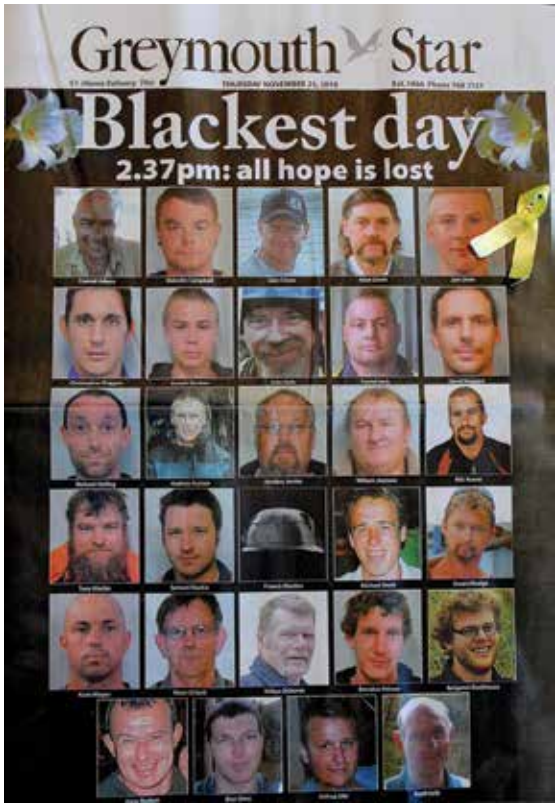
New guideline for directors

In response to the Royal Commission's recommendations, a guideline for good governance practices on health and safety has been published by the Institute of Directors and the Ministry of Business, Innovation and Employment.

The guideline provides directors with advice on how they can influence health and safety performance in their organisations. As well as outlining director responsibilities, the guideline includes diagnostic questions and actions for directors.

It is an essential resource for directors, Chivers says.

The guideline is available from:
www.iod.org.nz/Publications/Healthandsafety.aspx



"It's not enough to turn up, open the board pack at the table, sign off a few things, eat the cucumber sandwiches and go home"

Forum chair Rob Jager speaks at the Auckland event

Leaders make a difference

The Business Leaders' Health and Safety Forum inspires and supports its members to become more effective leaders on health and safety. The Forum has more than 140 members, who are CEOs or Managing Directors of significant New Zealand companies.

Contact us

Julian Hughes, Executive Director
Email: julian.hughes@zeroharm.org.nz
Phone: +64 4 802 7069
Mobile: +64 27 248 9545

Or find out more at: www.zeroharm.org.nz

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