

Welcome to the August edition of Train Brain

There is a lot happening in the health and safety space, not least a review now underway of our governing legislation, which has been in place for almost a decade.

MinEx will be submitting to this review, and I hope you will consider attending one of the workshops that Workplace Relations and Safety Minister Brooke van Velden is conducting around the country.

One thing I hope emerges from the review is the realisation that if we are going to see improvements in our nation's health and safety culture, we can either blame or learn. We can't do both as I comment on in this Train Brain.

While that commentary acknowledges our sector has learned a lot of the lessons from Pike River – and we are ahead of some other industries in our approach to health and safety – we do have a big elephant lurking – Silicosis.

I know that's a challenging issue for many in our industry and yes there are people who've worked all their lives in the sector with no ill-effects; sadly, that's not a universal outcome. We've already had a couple of cases of silicosis in quarries and there are high probabilities of there being more across the extractive – and other sectors we supply.

Our cousins across the ditch have put a suite of changes in place to address the awful realities presented by hundreds of engineered stone workers who will die from silicosis.

I explored this issue on national radio recently with leading Australian health and safety consultant Jodi Goodall, who makes clear the risks go well beyond stone bench top manufacturers and installers. We've captured the interview in this Train Brain.

We also have a contribution from Auckland University researchers who are looking at the risks of erionite. While that rare mineral presents most likely a much lower level of risk than silicosis, it needs to be on our radar.

This Train Brain also includes a summary of the IOQNZ's report on the need for our industry to develop strong strategic leadership for its future, including on health and safety.

I trust this newsletter gives you some of the insights you need as an industry leader or worker, to help shape first-rate thinking, training and practices at your site.

Stay safe.

Wayne Scott CEO MinEx and AQA

Government review of Health and Safety



Minister Brooke van Velden

In mid-June, Workplace Relations and Safety Minister Brooke van Velden announced a review of Health and Safety in New Zealand and MinEx will be submitting.

She wants "to make sure businesses and organisations are focused on addressing the things that are causing workers harm, rather than being caught up in unnecessary compliance or trying to interpret and navigate complex or perplexing rules and regulations.

Consultation is open until 31 October 2024. The review was part of the ACT/National Coalition agreement action to lift productivity and economic growth.

MinEx CEO Wayne Scott says with the Health and Safety at Work Act 2015 now almost 10 years old it is appropriate to see what is working and what is not.

"Despite changes post the Pike River disaster, NZ's results in health and safety are significantly worse than Australia and UK. The Minister has received considerable feedback that businesses are struggling to understand their health and safety obligations and unsure how to comply, and she wants a system that supports businesses to focus on preventing harm to workers whilst minimising compliance costs."

The scope of the review includes:

- Legislation and regulations
- · Effectiveness of regulators
- Enforcement and standard setting
- Organisations authorised to certify or license high-risk activities

The review will not consider the following, all of which will be reviewed separately:

- · Government agency funding
- Rates of health and safety levies
- Effectiveness & efficiency measures/targets for frontline WorkSafe activities

Wayne says he's been running a discussion on the current health and safety law at this year's MinEx Workshops.



The feedback to date is:

- Everything is too complex needs simplification
- System is inflexible, not scalable
- Regulations haven't moved with the times
- Regulator needs to be consistent level playing field for all
- A need for better sharing of learnings from incidents in a timely manner
- Better and more guidelines are required
- Clearer guidance material needs to be kept up to date
- · Engagement with industry is critical
- A sharing of tasks industry could do some tasks now done by regulator
- We should learn from what works in Australia and elsewhere
- Guidance for industry so that they know what is expected
 A well-resourced and funded HHU Inspectorate

Wayne will be submitting MinEx's views on what needs to change in health and safety legislation, regulations and operations.

Minister Brooke van Velden says she will be travelling across the country in the coming months to hear from businesses and workers who are impacted by the current rules and regulations.

"Businesses and community organisations spend a huge amount of money trying to keep people safe, but it's worthwhile asking: are the rules and expectations proportionate to the actual risks, and when should common sense prevail?

"Lawyers and company directors should not have to be kept up late at night anguishing

over what 'so far as is reasonably practicable' means.

"That's why we're holding this consultation and I want to listen to experiences within our work health and safety system, including what they think the role for government should be and where they think we've got the requirements right and wrong."

MBIE is co-ordinating the consultation and has opened a <u>Have your Say</u> page.

Wayne welcomes any feedback you would like to assist in formulating a MinEx submission. Contact him on <u>wayne@aqa.org.nz</u>

Blame or learn

Wayne comments:

When the Transpower tower fell and cut Northland's power in June, political leaders were calling for heads to roll, demands were made for accountability, there was even talk of a class action on behalf of affected local businesses.

Did anyone comment about the risk posed to the workers (or anyone else nearby) when the huge tower – minus its bolts – fell to the ground?

I think the fact that no one got killed was the most important thing – but those commenting seemed more focused on apportioning blame.

We saw a similar blizzard of blame after the rail ferry Aratere grounded near Picton. Personally, I'm grateful that whatever caused the steering fault didn't happen an hour later when the ferry would have been entering the narrow rocky confines of Tory Channel. With 47 people on board, we could easily have had fatalities at the more remote location.

There are now major investigations underway into both incidents. Let's hope they shed light on what happened and provide learnings, without external fingers being pointed.

Anyone experienced in health and safety culture will tell you that after an incident you can blame or you can learn – but you can't do both.

The extractive sector learned a lot from the awful tragedy of Pike River. The Royal Commission which followed provided a whole suite of insights and learnings which included:

- Little health and safety leadership existed in the Pike River company
- No verification the health and safety management system was in place, and risk management was ineffective
- Training was deferred due to production requirements getting coal out was more important than worker safety
- Contractor management was ineffective
- Workers "by-passed" safety devices
- There was inadequate regulator oversight

Our sector, while by no means perfect or exempt from risk, has learned from these findings and we've lifted our game on health and safety. It did take nine years after Pike River but we now have specialised health and safety regulations. We also, uniquely, have HHU inspectors all of whom have experience of guarries or mines.

Sadly, while the lessons from Pike River are applicable to many other industries in New Zealand, none has been picked up on the learnings, nor required to do so. Our workplace fatality rate continues to be twice that of Australia and about four times that of Britain.

There are no such specific regulations for many other industries and when an inspector visits a farm, forestry block or construction site, often they will have no specialist knowledge.

So, while the good piece of legislation which came in the wake of Pike River – the Health and Safety at Work Act 2015 – this isn't being properly supported or enforced. Thus, it's good to see it now being reviewed.

In the interim, we still have the police trying to determine who was responsible for the mine's fatalities. Approximately \$20M was spent in the 2018-2023 period alone.

While I feel enormous sympathy for the families of the 29, I think such money is better spent on trying to learn and enforce the lessons from Pike River and helping stop future fatalities.

The same applies to near misses like the Northland power pylon and Aratere grounding. Rather than apportioning blame, let's be grateful no one died in these accidents and put the focus on making sure they don't happen again with potentially much worse outcomes.

Exposing the risks of silicosis



Jodi Goodall, Brady Heywood

The serious risks posed by silicosis to extractive and other sector workers were recently highlighted in a nearly 20-minute interview recently on Radio NZ.

National radio host Suzie Ferguson interviewed both Wayne and Australian health and safety specialist Jodi Goodall who had spoken earlier at the QuarryNZ conference in Rotorua.

Jodi first outlined how silicosis was an incurable, progressive and totally preventable lung disease.

While the reported focus in Australia has been to implement the ban last month on production and installation of engineered stone products, she said the spread of silicosis risk extended to an estimated 10,000 Australian workers across extractive, brick, construction, concrete and other sectors.

It was expected around 230 people a year would get fatal silicosis lung cancer – more than the entire fatality rate across all Australian workplaces.

Wayne said it would be naïve to think that there were not similar per capita exposure risks in New Zealand, and we are not moving fast enough in guidance and regulations.

He repeated MinEx's call for a co-ordinated approach to dealing with silicosis risks including a registry of silicosis cases, strong risk assessment processes and improved focus on early detection.

Jodi said a silicosis dust disease registry had brought out the magnitude of the problem in Australia and the absence of one in New Zealand meant there was no capture of cases, making it difficult to know the scale of the issue.

Respirable crystalline silica was not just created by engineered stone, she said.



It was occurring in tunnelling projects in Australia as well as in sandstone quarries, concrete cutting and other sectors.

The ban on engineered stone is only one of seven recommendations being implemented by the Australian Government to combat silicosis. A Dust Disease Taskforce had been created across affected industries. There are also stronger regulations and funding for silicosis researchers and for educators to reach smaller worksites. Better support and training was also being provided to doctors and radiologists so they knew what to look for in lung x-rays and other medical tests.

Jodi stressed that the big risks presented by silicosis came when high-energy processes were used to break down rock or other materials containing silica.

Wayne answered a caller's query about whether people faced any risks in their homes from engineered stone surfaces. He said there was no evidence internationally that homeowners were at risk from silicosis because they would not be exposed to the intense levels of an engineered stone installer. Similarly, there was no science showing quarry neighbours were

at any risk, which could reflect the distance they were from operating sites.

Wayne says a lot of monitoring is done on worker exposure on NZ extractive sites and higher potential levels of exposure emerged with high-energy machinery such as crushers. He said water suppression was very effective for things such as concrete cutting, but face masks did little to reduce the risk especially in high-exposure environments.

Hear the full interview with Wayne and Jodi Goodall here.

View the MinEx booklet on Managing worker exposure to dust in quarries and mines.

Erionite: a naturally occurring carcinogen mineral in New Zealand

Erionite is a naturally occurring, fibrous mineral, which belongs to a group of minerals called zeolites. There are over 40 naturally occurring species, some of which may display a fibrous and/or asbestiform habit. Zeolites form in altered volcanic rocks at low temperatures (<200°C).

Of the fibrous zeolites, only erionite is listed by the International Agency for Research on Cancer (IARC, 2002) as a Group 1 carcinogen, due to the mineral fibres being linked to malignant mesothelioma (MM). The MM disease is typically associated with environmental and occupational exposure to asbestos and the inhalation of airborne mineral fibres.

The University of Auckland, along with collaborators, are part of the MBIE Endeavourfunded research project "Assessing and Managing the Risk of Carcinogenic Erionite in New Zealand". The project team has been identifying the presence of erionite in rocks, soils and air across New Zealand, to understand the potential risk this naturally occurring mineral poses to people's health.

In New Zealand the ongoing research has identified erionite in a variety of volcanic rocks, including basalts, andesites and rhyolitic tuffs, across the North and South Islands. Where erionite has been found in altered volcanic rocks, the occurrence has been highly localised. The erionite project has also identified erionite in soils and on leaves in areas where erionite was detected in rocks, potentially related to the mobilisation of these mineral fibres in the air, which could be inhaled by people.

Identifying erionite and therefore quantifying risk is notoriously difficult for a range of reasons (laboratory equipment, training, lack of accepted standards, disagreements about erionite chemistry etc).

The risk of exposure to erionite fibres is increased in the civil and extractive construction industry when altered volcanic rock, soil and rhyolitic ash that may contain erionite fibres are disturbed and may become airborne. Disturbance may come from quarrying activities or due to civil construction and/or maintenance activities. Horizontal infrastructure projects at surface or below ground (e.g. transportation projects (road or rail) or pipeline construction) can have increased exposure in comparison to vertical construction projects that are more spatially constrained. Horizontal infrastructure projects that include 'bulk earthworks' can traverse multiple geological types and at various layer depths, potentially including localised zones of zeolite deposits.

Erionite fibres as well as other dust particles, are less likely to become airborne if the materials are kept moist, therefore good dust control measures are important management measures that should be incorporated into the planning, design, extraction of materials and construction and maintenance activities.

For more information on the erionite project and for guidance on health and safety protocols and different analytical methods for identifying erionite, please visit the project website <u>https://erionite.blogs.auckland.ac.nz</u>.

• This edited article was submitted by the University of Auckland-led erionite project.





It is a good idea to record your CPD restricted and unrestricted hours every time CPD is done. It only takes a few minutes!

Strategic quarry leadership vital



Paul Sutton, IOQNZ

As quarries enter an era defined by uncertainty and rapid transformation, future and strategic thinking leadership is not just an option but a necessity.

That was a summation of the <u>Fit for Future Quarrying</u> research project led for the Institute of Quarrying NZ by its Education Officer, Paul Sutton, and outlined at July's QuarryNZ conference.

He says as well as developing strong leadership in the sector, it needs to maintain community trust. That included leaders prioritising sustainable practices, investing in environmentally-friendly technologies and adopting responsible quarrying methods.

Strong communication with the public, communities and government agencies will ensure the sector maintains it's social licence to operate.

Industry leaders also needed to prioritise compliance with regulations, health and safety standards, and implement robust monitoring and reporting systems to ensure adherence to ethical practices.

Paul said that by adopting these recommendations, leaders could chart a course toward a future where adaptability, innovation and strategic foresight become the pillars of enduring success.

They would future-proof their organisations and contribute to a landscape where change is not a threat but an opportunity for growth and advancement.

The research recommended development of a future-focused leadership programme to compliment the usual operational training programmes.

"As we know there is leadership and there is management, and one should not stop the other."

Case studies in real-life settings in the workplace would be the focus on leadership programmes.

The report also recommends a diversity, empowerment and inclusion action plan and the identification of new technologies which can assist quarrying to progress.

It was sponsored by ConCOVE - The Construction & Infrastructure Centre of Vocational Excellence which is hosted by the Manukau Institute of Technology (MIT).

The full report and its recommendations were to be published on the IOQ website. An action plan to implement the report will be brought together following a sector meeting in Wellington on September 25.

Tim Kennedy, now former IOQNZ President, commented about the need for better training when he addressed his organisation's AGM at the QuarryNZ conference in Rotorua.

"We need to make this industry a profession."

Quarry industry members are encouraged to provide feedback on the ConCOVE report.

ConCOVE executive director Katherine Hall said an amplified industry voice needed to be heard as part of emerging consultation on the future of vocational education.

Young Kiwis avoid construction jobs

Many young New Zealanders are steering clear of careers in construction, engineering and infrastructure, viewing them as too physical and challenging.

That's according to research by the <u>Workforce Development Council for Infrastructure and</u> <u>Construction, Waihanga Ara Rau</u> which says the perceptions are threatening even greater workforce shortages nationwide.

Over half of young adults and over 60% of millennials view the idea of having a career in engineering, construction and civil infrastructure negatively.

The research shows that 44% of millennials and 37% of young adults (aged 18-25) believe they lack the physical strength for construction jobs. Additionally, around 30% of students feel they are not proficient enough in maths or sciences for these careers. MinEx CEO Wayne Scott says the same misconceptions would very likely apply to how the extractive sector is seen.

The Waihanga Ara Rau research says many young New Zealanders believe jobs in construction and infrastructure require exceptional physical strength or advanced STEM skills, but this is far from the truth. The sectors include a wide range of occupations, from engineering and project management to architecture and quantity surveying.

These misconceptions are a growing problem for New Zealand, we urgently need more skilled professionals to build our new homes, hospitals, and other vital infrastructure.

While the construction industry is experiencing a national slowdown, the long-term demand for skilled professionals remains critical. The slowdown impacts parts of the industry, including fewer civil engineering projects and reduced activity among group housing builders. However, this is a temporary downturn, and we expect the sector to recover over the next 12-18 months.

This recovery will require a concerted effort to address misconceptions and attract new talent to the industry. Roles in construction, engineering, and infrastructure are varied, well-paid and offer job security in main centres and regions with a robust pipeline of future work.

Remember to keep all evidence of CPD activities to provide when you apply/ renew your CoC

New Zealand Branch

Annual Conference 2024 - Shaping the Future of New Zealand's Resource Sector: Innovative Solutions for Critical Minerals

Monday, 19 August 2024 – Wednesday, 21 August 2024 Wellington

About this event

This year's conference will focus on how mining and minerals can enable a sustainable future. Technology, geology, mine planning, sustainability practices, regulatory issues, health and safety, and lwi perspectives will be of interest to researchers, explorers, operators, and new professionals working in the minerals sector.

University students undertaking research in earth sciences, environmental, engineering, and societal aspects of minerals are encouraged to attend. The conference is in part designed to complement the New Zealand Branch Career Roadshow delivered to New Zealand universities.

Click here to register

Next round of Inspiring Futures Foundation grants re-open in September

Close to \$70,000 has been awarded by the Inspiring Futures Foundation in the recent granting round to three leading automotive and transport organisations to encourage long-term workforce sustainability in their industries.

The recipients of the funding, which totalled \$68,800, were Bus and Coach Association New Zealand, New Zealand Collision Repair and MITO.

Grant applications for the Inspiring Futures Foundation will re-open on 1 September 2024.

VET CONSULTATION - HAVE YOUR SAY

The Government is consulting on three interconnected proposals to redesign the Vocational Education and Training (VET) system.

- Proposal 1: Creating a healthy Institute of Technology and Polytechnic (ITP) network that responds to regional needs
 Proposal 2: Establishing an industry-led system for standards-setting and industry
- training (Options A and B)

 Proposal 3: A funding system that supports stronger vocational education

The Tertiary Education Commission (TEC) and Ministry of Education (MoE) are running this process, you can find more information on the MoE site

If you know of anyone who would like to receive the Train Brain email office@minex.org.nz and we'll help keep their training on track

IOQNZ Webinars/Courses

We have two interactive webinar series coming up in September and October 2024.

Extractive Planning Webinar Series (4 x 2 hr webinars) 5 Sept, 12 Sept, 19 Sept, 26 September Presenter: Wayne Scott CPD on offer: 8 hrs

Worker Health Webinar Series (3 x 2 hr webinars) 2 Oct, 9 Oct, 16 Oct Presenter: Dr Mary Obele CPD on offer: 6 hrs

Note: Those who register for either webinar series do need to attend all sessions in order to achieve the CPD on offer.

Cost is \$100.00 Member; \$200 Non-Member

To register please click here: IOQ Courses and Webinars | IOQ NZ

MITO Courses

MITO Extractive Micro-credentials

Our micro-credentials are designed for extractive industry employees, particularly those wishing to be appointed to a safety-critical role under the and Quarrying Operations) Regulations. Choose one of three, or all three!

Safe Working Practices Micro-credential (Level 3)

This provides an understanding of the general safety practices for workers and how to undertake a job safety analysis in the extractives industry. Courses take two days in an off-job session run by a provider.

Site Construction and Maintenance Micro-credential (Level 4)

This provides the skills and knowledge to identify the attributes and health and safety considerations of conveyors, crushers, and screening plant; how to follow, maintain and recommend modifications for stockpiling and tip head management plans; and explains associated hazards and controls, in the extractives industry. Again, a two-day course will be required.

Standard Operating Procedures (SOP) Micro-credential (Level 5)

This programme will provide the skills and knowledge to identify the key components of an extractive site operations activity, write an SOP and test and review them in the extractives industry. This course can be done online at any time from any device – mobile phone, tablet or PC.

Read more on our website at mito.nz/extractivemicros

Contact MITO on 0800 88 21 21 to enrol.

NZ Mines Rescue Service Courses

Click on the links below to view the upcoming courses you can do through Mines Rescue Service.

2024 B GRADE COC TRAINING SCHEDULE

2024 SITE SENIOR EXECUTIVE TRAINING PROGRAMME

2024 Specialist CoC

For more information contact Colin McDonnell (03) 762 7828.

ACT Safety Courses

View the upcoming courses from August until December HERE.

To view all Extractive Unit dates or book a course visit the <u>Extractive Units Training | ACT</u> <u>Safety</u>

Tai Poutini Courses

Go to the <u>Tai Poutini website here</u> to view the available courses. Students may be eligible for free fees, see more information <u>HERE</u>.

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