



Sometimes it takes a tragedy in our sector to create change. In our case it was Pike River which saw new, tougher regulations and enforcement for underground mines, and the extractives sector generally (more comment on that in this edition).

In Queensland, the prompt was an on-going series of fatalities and serious accidents in the state's mining and quarrying industry. That led in 2020 to the Brady Report which examined the causes of serious accidents; it's a document which continues to reverberate well beyond the shores of the Sunshine State.

I am therefore very pleased to announce that MinEx is going to run two seminars later this year featuring Jodi Goodall. Jodi works with Dr Sean Brady; lead author of that report and we feature Jodi in this edition of Train Brain along with Dr Brady himself.

Jodi has around 20 years experience as a Health, Safety and Environment leader with expertise in mining and high hazard sectors. Her particular focus is Organisational Reliability and she advocates strongly for practical, innovative safety leadership and worker health. Her style energises leadership teams to create the positive organisational culture that drives best-in-class HSE performance.

The seminars will be running a 3-hour workshop in Greymouth on October 19 and the other in Wellington on October 20. I urge anyone with an interest in reducing serious worker injuries and fatalities in our extractive sector to pencil in one of those dates. Details will be provided in coming weeks. Meanwhile, I've now started our annual series of [MinEx workshops](#) with two sessions held in Northland. Please look at the story about our workshops and consider attending one of them – or sending some of your staff along.

One of the issues we do discuss in this year's workshops is the revised regulations for quarries and opencast mines – if they actually emerge this year. After nine years of delays, from today onwards I'm putting MBIE on notice that I will raise this issue for every further week that goes by until the long-promised regulations emerge. See story on this and Chief Inspector Paul Hunt's plans for transitional arrangements.

Please also have a look at the emerging plans by our industry's Workforce Development Council Hanga-Aro-Rau to update the qualifications for our extractive sector.

I look forward to seeing many of you in coming months at the workshops and QuarryNZ Conference.

Wayne Scott  
CEO MinEx and AQA

# Push to get new extractive qualifications underway

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The continued delay in new regulations for the quarrying/opencast mining sector is also impacting on a long overdue need to review and develop improved extractive industry qualifications.

For several years, the existing qualifications have been in a holding pattern waiting for the new regulations to emerge.

With the repeatedly renewed qualifications due to again expire at the end of this year, the new Workforce Development Council (WDC) for industries including extractives, has decided to bring together a meeting with stakeholders to assess the best way forward.

Matt Gough is Industry Manager (Engineering) for Hanga-Aro-Rau, the WDC for the Manufacturing, Engineering and Logistics industries which includes the extractives sector.

He says Hanga-Aro-Rau is calling a meeting on April 29 to find out if stakeholders want to extend the current qualifications with the New Zealand Qualifications Authority (NZQA) – or consider how other training is meeting needs to ensure any new developments are fit for purpose.

Eve Price, Qualifications Systems Manager for Hanga-Aro-Rau says usually qualifications only have a shelf life of about five years and that's the standard time for a review, though some rapidly changing industries such as those dealing with technology, can be reviewed more frequently.

MinEx CEO Wayne Scott says the existing extractives qualifications pre-date the inquiry into the Pike River disaster in 2010.

“Any qualifications need to reflect the existing government regulations, so if these are out of date, then the qualifications are out of date.”

Wayne says he's enjoying working with Hanga-Aro-Rau and strongly supportive of the meeting to consider the status of the extractive qualifications framework.

“The view that will be expressed to the meeting is that we've got to get moving on these new qualifications and start the process of updating them. We are now getting a sense of what the new regulations will contain so we need to get started on developing the qualifications that will reflect them.”

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## Transitional approach to new regs by WorkSafe

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WorkSafe is already planning for how it will bed in the new regulations for quarries and opencast mines.

In the just issued HHU report for the quarter ending September 2021, Chief Inspector Paul Hunt predicts (hopefully) that the new Mining and Quarrying Regulations are very likely to come into force in May.

He says the industry now needs some clarity on plans for introduction of the new regulations once they are in place.

“Although the regulations essentially

The transitional arrangements mean that the operator would not be in breach of the regulations overnight – rather there will be a transition period of a year or more for the operator to allow the incumbent B-grade manager to upskill to an A-grade CoC, or for the appointment of an alternative A-grade CoC holder.

Paul is outlining an effort by WorkSafe to work with industry bodies like MinEx and IOQNZ to explain the new regulations and perhaps specific meetings with some of the bigger companies.

change overnight, their implementation has phases that the industry should understand. There will be transitional arrangements in the new regulations that will give operators time to meet the new requirements sometime after the regulations come into force,” wrote Paul Hunt in the HHU report.

A simple example might be that currently a quarry of 20 persons, with no explosives being used, has appointed a manager who holds a B-grade CoC. This would currently be compliant under the regulations, but in the new regulations a quarry of this size would require the appointed manager to hold an A-grade CoC.

You can see his full comments and the September quarter HHU report [here](#).

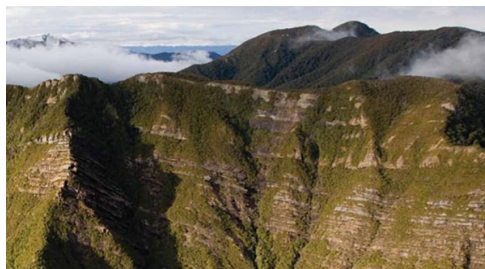


*It is a good idea to record your CPD formal and informal hours every time CPD is done.  
It only takes a few minutes!*

## Nine long years - and still waiting

In recent days I've been advised that the new regulations for quarrying and opencast mining are again being delayed.

Our sector has been more than patient. We have been waiting, as Parliamentarians sometimes chant: NINE LONG YEARS for these regulations. Fearing even further slippage, from now on, I will use every opportunity I get to challenge the MBIE officials who are holding the regs up.



Here's a brief history. After the Pike River Mine explosion in 2010, the then Key Government introduced rushed new health & safety regulations into the extractives sector.

It was acknowledged during the process that there would be errors and omissions, particularly as the regulations were framed around the operations of underground coal mines (none now left in operation). A promise was made in 2013 to revise the regulations and make them fit for purpose. What does it take for officials to do their job? Do they take no account of the risks they are posing through their ever-flexible timeframes to those working in the same broad sector as led to the Pike disaster?

It's not as if their political masters haven't tried. The officials have endured through two National government ministers and three Labour government ministers. When I saw new Workplace Relations and Safety Minister, Iain Lees-Galloway, in early 2018, he said he wanted to see the new regulations

in place by Christmas. Three more Christmases have passed. Michael Wood is now Minister but it's MBIE that's the bottleneck.

WorkSafe is wholly supportive and already planning transitional arrangements (see next story). But over two years since Cabinet approved these changes, and 6 months since we reviewed an exposure draft of the new regulations, we are now told we won't see the draft regulations until the middle of this year. Perhaps it will be Christmas.

While we have seen improvements from industry and excellent support from WorkSafe, we have already had nine years of exposing thousands of workers to an environment which does not have appropriate regulations to manage their health and safety. Nine years of delays and excuses.

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## Loss of MinEx Board Member Kristy Christensen

With great sadness we inform you of the passing of MinEx board member Kristy Christensen, who died after a short battle with breast cancer. Kristy had blazed a trail for women in mines and quarries across New Zealand and Australia, and through her company Shesfreetobe. Kristy was the only New Zealand woman chosen from a record 626 world-wide nominations in the fourth edition of the 100 Global Inspirational Women in Mining. She will be greatly missed and our thoughts are with her family and friends.  
The team at MinEx.

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

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## MinEx workshops now underway

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There are 16 workshops being held from our Far North openers through to one in Invercargill. They stretch through to October with our next series starting in Blenheim on Monday 16 May, followed by Nelson the next day Tuesday 17 May, and Greymouth on Thursday 19 May.

Please look at our schedule [here](#) and make a booking for yourself and your staff. Each workshop will run from 8am to 4pm, with morning tea and lunch provided and costs \$150+GST. They provide 8 hours of unrestricted CPD and cover: Trends in Safety Performance, WorkSafe Update, Falls Hazards, Chronic Unease, Worker Health.

We had hoped to run a session on Women in Extractives this year, run by the then MinEx Board member and Shesfreetobe founder Kristy Christensen. Sadly, Kristy's untimely passing has delayed this but we will be running a session in 2023. Women still only make up fewer than 1 in 7 in our workforce and frankly, if such stats persist, we won't be able to survive as an industry.

I trust we are doing a lot better than places like West Australia where a [recent documentary](#) reported 200 women have given evidence to a Parliamentary inquiry into sometimes horrific sexual harassment of women fly-in fly-out women workers. Without doubt though, we need to be doing better than we are in making our workplaces more attractive to women.

I also acknowledge that we are again being supported by WorkSafe which will have an HHU inspector at each workshop to give an update.



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## Good European resources on silica

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NEPSI is the acronym for the \*European Network for Silica\*, made up of European employer and union organisations which in 2006 signed the "Agreement on Workers' Health Protection Through the Good Handling and Use of Crystalline Silica and Products Containing it."

Recently NEPSI updated some of its materials including a handy guide for small and medium sized businesses (SMEs) on how to manage issues with RCS – Respirable Crystalline Silica – which if ingested, can cause serious health issues. It identifies that quarries are among a range of workplaces where RCS can exist and the guide takes you through four steps on managing RCS.

The first step is to **assess** whether there is a significant risk of RCS exposure in your work environment. Then with any risks identified, you decide what type of **control** and prevention measures should be put in place to eliminate risks or limit them to an acceptable level. Then you **monitor** the effectiveness of the control measures in place. Then, provide **information**, instruction and training to the workforce in order to inform them about the risks they face in their work environments.

Here is a link to [NEPSI](#) and the MinEx booklet on [Managing worker exposure](#) to dust in mines and quarries provides a lot of complimentary material between the two resources.

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## What causes serious accidents?

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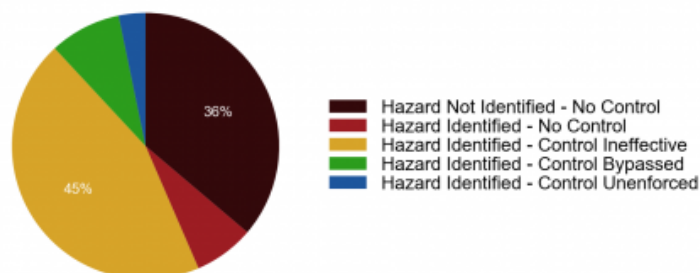


In 2020, Dr Sean Brady, a forensic engineer, reviewed eight years of data recording 589 serious injuries and fatalities in Queensland's mining sector. He found a fundamental failure to effectively identify and control hazards and the controls put in place to prevent reoccurrence were typically some of the least effective available. This is a slightly abridged version of some recent comments he made on his report.

As part of the reporting process to the regulator, the cause of each serious accident was categorised with respect to whether or not a hazard was identified, and if it was, was it adequately controlled?

This Absent or Failed Control chart below indicates that the causes of serious accidents were dominated by two categories.

Absent or Failed Controls found in Serious Accidents for All Mines



About 36 per cent were caused by a failure to identify the hazard, while 45 per cent were a result of a hazard being successfully identified, but not effectively controlled. This means that over 80 per cent of serious accidents are a result of a very fundamental failure in hazard management.

As for 47 fatalities between January 2000 and July 2019, in almost all of these incidents we found that ineffective controls also played a key role. So not only do ineffective controls contribute to serious accidents, they also contribute to fatalities.

## Responses to serious accidents

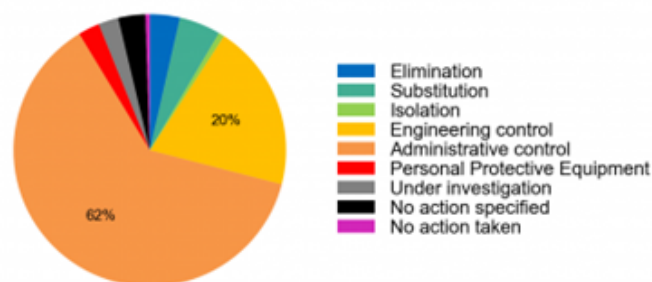
The most effective controls are elimination, where you remove the hazard followed by substitution, where you substitute the hazard with something less hazardous. Then comes isolation and engineering controls, where you isolate the hazard from people or implement engineering controls, such as guards on machinery. These types of controls are known as hard controls because they physically stop the hazard from causing harm to people.

Then you have administrative controls, such as procedures and training, and finally there's PPE (personal protective equipment), eg, safety boots and gloves etc. These final two controls are known as soft controls, and they control hazards in a very different way from hard controls. Rather than having an effect on the hazard itself, they're attempting to have an effect on the people who interact with the hazard.

The key takeaway with different types of controls is there's a very clear hierarchy of their effectiveness. So were the controls put in place in the aftermath of a serious accident some of the most effective type of controls available?

The pie chart below shows the highest level of control applied in the aftermath of these accidents. For example, if two types of controls were reported for a single incident, say isolation and something administrative, only the highest level applied is shown.

Highest Level of Corrective Action Applied after Serious Accidents for All Mines



In 62 per cent of the incidents the highest reported controls were administrative in nature. Further, less than 30 per cent were hard controls.

So, following an incident that had a demonstrated ability to cause a fatality or a serious accident, one of the least effective types of controls was most commonly applied.

In a very pessimistic sense, applying an administrative control is essentially telling people not to let it happen again.

## So what does this all mean?

Well, the first point is that accidents are happening because of a failure of fundamentals: a failure to identify a hazard and control it effectively. The second point relates to the industry's response to the serious accidents. From discussions with people in the industry, this was one of the most confronting, but not surprising, findings from the analysis.

It was confronting because it highlighted the extent of the industry's reliance on administrative controls to manage hazards, but it wasn't surprising because many in the industry told me that selecting a paperwork 'solution' was a default selection – the industry is simply heavily reliant on managing risk using paper.

And if the leading cause of serious accidents is ineffective controls, and the leading type of control put in place in the aftermath of an incident are administrative controls – one of the least effective controls available – is it really that surprising that we then see ineffective controls playing such a key causative role in fatalities and serious accidents?

On the upside, this is a real opportunity for the industry to have an honest conversation with itself about its reliance on administrative controls. Moving toward selecting harder controls could have a significant impact on industry safety.

Sean Brady's 2020 review culminated in 11 recommendations for both industry and the regulator on how to lower the fatality and incident rate.

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



## ACT Safety Courses



Please find following upcoming dates for A-B Grade National certificate and unit standards. Please contact our offices to find out more about the A-Grade and B-Grade quarry certificate. All our training is offered via Zoom so no classroom attendance.

Visit our website [www.actsafety.co.nz](http://www.actsafety.co.nz)  
Booking rooster: <https://book.actsafety.co.nz/>

### A-Grade training dates:

Extraction Sites - Unit Standards 15663 & 31091 - Stockpiles	A Grade Surface	2/05/2022	03/05/2022
Extraction Sites - Unit Standards 15663 & 31091 - Stockpiles	A Grade Surface	01/08/2022	02/08/2022
Geological Nature & Crushing and Screening - Unit Standards 15664 & 31092	A Grade Surface	07/06/2022	08/06/2022
Geological Nature & Crushing and Screening - Unit Standards 15664 & 31092	A Grade Surface	01/09/2022	02/09/2022
Excavation & Transportation & Extraction Methods - Unit Standard 30902	A Grade Surface	11/07/2022	12/07/2022
Excavation & Transportation & Extraction Methods - Unit Standard 30902	A Grade Surface	26/09/2022	27/09/2022
Extraction Sites - Unit Standard 21151	A Grade Surface	08/08/2022	09/08/2022
Extraction Sites - Unit Standard 21151	A Grade Surface	27/10/2022	28/10/2022

### B-Grade training dates:

Regulatory Requirements - Unit Standard 7142	B Grade Surface	27/06/2022	30/06/2022
Extraction Sites - Unit Standards 21153 & 21155	B Grade Surface	01/06/2022	02/06/2022
Site Construction & Maintenance and Safety Checks & Plans - 8900's	B Grade Surface	04/07/2022	05/07/2022
Environmental Impacts - Unit Standards 21154 & 21156	B Grade Surface	01/08/2022	02/08/2022
Regulatory Requirements - Unit Standard 7142	B Grade Surface	05/09/2022	08/09/2022

### CoC Units

Incident Investigation - Unit Standard 16686	CoC - Online	13/06/2022	14/06/2022
Incident Investigation - Unit Standard 16686	CoC - Online	25/07/2022	26/07/2022
Incident Investigation - Unit Standard 16686	CoC - Online	5/09/2022	6/09/2022
Incident Investigation - Unit Standard 16686	CoC - Online	03/10/2022	04/10/2022
Incident Investigation - Unit Standard 16686	CoC - Online	19/12/2022	20/12/2022



Risk Assessment - Unit Standard 28983	CoC - Online	11/07/2022	12/07/2022
Risk Assessment - Unit Standard 28983	CoC - Online	22/08/2022	23/08/2022
Risk Assessment - Unit Standard 28983	CoC - Online	03/11/2022	04/11/2022
Risk Assessment - Unit Standard 28983	CoC - Online	24/11/2022	25/11/2022

CIMS Incident Management - Unit Standards 29553, 29554 & 32158	CoC - Online	21/11/2022	22/11/2022
Human Factors - Unit Standard 26855	CoC - Online	01/11/2022	02/11/2022
Safety Critical Explosives Knowledge - Unit Standards 17694 & 21152	CoC - Online	12/12/2022	13/12/2022

## NZ Mines Rescue Service Courses



To view the upcoming NZ Mines Rescue Service courses for 2022 click on the links below:

- [CoC Training Schedule](#)
- [Site Senior Executive Training Programme](#)
- [Specialist CoC](#)

For information contact the Commercial Training Manager on 021 193 8863 or email: [colin.mcdonnell@minesrescue.org.nz](mailto:colin.mcdonnell@minesrescue.org.nz)

## Tai Poutini Courses



Go to the [Tai Poutini website here](#) to view the available courses for 2022.

Students may be eligible for free fees, see more information [HERE](#).

Contact Nicole Scalmer on 03 769 9645 or [nicoles@tpi.ac.nz](mailto:nicoles@tpi.ac.nz).

## MITO Courses



Visit the [MITO website](#) for details on qualifications and courses you can do through MITO.

Contact MITO on 0800 88 21 21 to enrol.

To view our courses click here: <https://ioqnz.co.nz/shop/product-category/webinars-courses/>  
For more information email [log@xtra.co.nz](mailto:log@xtra.co.nz)

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