



A briefing to the incoming Ministers on health and safety in the extractives sector

November 2023



Introduction

MinEx is the national Health and Safety Council for New Zealand's extractives sector – the mining, quarrying and tunnelling sectors. We have prepared this BIM as an introduction to the extractives sector for Ministers, MPs and officials, to outline issues with health and safety in our sector which need addressing in the next term of Parliament and to encourage the dialogue between industry and Government necessary for positive outcomes.



Fraser's Underground Gold Mine, operated by OceanaGold at Macraes Flat near Ranfurly, Otago

MinEx the National Health and Safety Council for New Zealand's extractives sector

Our principal purpose is to help the extractives industry achieve its goal of being free from fatalities, injuries and occupational diseases.

MinEx is funded by the quarrying, mining and tunnelling sector – through the respective industry associations and a number of individual companies – with a mandate to:

- be the main point of contact with officials on all extractives sector matters related to health and safety, and
- through leadership and consultation, develop a sector view on relevant legislation, regulations, guidelines and training matters, and work with WorkSafe and other agencies to adopt and implement those views.

An important aspect of this mandate is that MinEx works for the interests of the sector as a whole, and not in the interests of individual members.

MinEx is governed by a board, with appointees from:

- Aggregate and Quarry Association of New Zealand (AQA), representing quarry sector companies.
- Australasian Institute of Mining and Metallurgy (AusIMM) NZ Branch, representing mining sector professionals.
- Civil Contractors New Zealand, representing contractors across all sectors, including tunnelling.
- E tū, representing extractives sector workers.
- Institute of Quarrying New Zealand (IOQNZ), representing quarry sector professionals.
- Straterra, representing mining and mineral sector companies.

As the mandated extractives Health and Safety Council, MinEx seeks early engagement with Government agencies and officials – and where necessary Ministers – on policy and operational developments. Through early engagement, MinEx can provide technical information and industry knowledge and viewpoints to officials to inform policy decisions, and thus represent the sector in the shaping of policy.



Taotaoroa Quarry near Cambridge

Snapshot of the New Zealand extractives sector

The extractives sector – quarrying, tunnelling and mining – is fundamental to the New Zealand economy and modern way of life. Because minerals and aggregates are essential to many aspects of life and to our economy, the discussion should not revolve around *whether or not* to mine or extract but focus on *how* to mine or extract in a way that is environmentally responsible and safe for workers.

Almost 8,000 people are directly employed in the extractives sector, including 1,200 in tunnelling projects. The number working in tunnelling is expected to decrease as major tunnelling projects in Auckland are completed. Estimated average earnings across the mining and quarrying sector is \$116,000 pa, compared to \$70,069 pa for the national economy.

Quarrying

Every built thing sits on aggregate (crushed rock and stone), or an aggregate based product, sourced from quarries or riverbeds; not a single house, factory, farm building, school, hospital, airport or road can be built without aggregate. This is sourced from as many as 1,100 quarries and crushing sites which are located from Te Hāpua to Bluff and in the Chatham Islands.

A wide range of industrial minerals are produced in New Zealand, including clay, limestone and dolomite (essential to farming productivity), perlite, halloysite, bentonite, zeolite, silica and serpentine.

Although the majority of aggregate comes from sites registered with Government agencies, many small producers fly under the radar, presenting particular health and safety risks.

A particular challenge faced by the quarry sector and end-users is maintaining urban and urban-fringe quarries. As quarries are forced to locate further from their markets, the cost of aggregate rapidly increases, as do emissions from transport.

Mining

The New Zealand mining sector includes extraction and processing of the following minerals:

- **Hard-rock and alluvial metalliferous** – OceanaGold has hard rock metalliferous operations at Waihi and East Otago, both of which include surface and underground operations. Federation Mining is developing an underground gold mine at Reefton. Other operators run a number of alluvial gold mines, mainly on the West Coast, Otago and in the Southland. Hard rock gold contains gold in the rock itself and mines resemble typical quarries, whereas alluvial gold is loose and is often mined in water using diggers and floating equipment.
- **Ironsands** – Mined near the coast at the Waikato North Head mine and Taharoa mine, for iron and steel production at New Zealand Steel's Glenbrook steel mill, and also for direct export. It is also mined for export on the West Coast of the South Island.
- **Coal** – open cut coal is mined in the Waikato, Southland, and the West Coast. This is used for thermal generation and industrial heat processes such as milk powder factories, and high-grade West Coast coking coal is also exported for essential use in steel production. There are no underground coal mines currently operating in New Zealand.

Tunnels

Tunnels for infrastructure (e.g. road, rail, water treatment) are considered mining operations for the purpose of New Zealand mining regulations. With the completion of the large tunnel projects over the next couple of years, the sector is again heading into a decline. The immediate work ahead is small projects mainly for water utilities. Retention of trained workers will be critical to ensuring the ongoing safety of tunnelling operations in New Zealand.

Nature of risks at quarries, mines and tunnels

Quarries, mines and tunnels are high-hazard workplaces. This is demonstrated by the range of principal hazards, which can cause multiple fatalities and which require careful management, fit for purpose regulations, not laissez-faire or ill-defined regulations. The most chilling example of regulatory failure was the Pike River coal mine methane explosion which claimed 29 lives in New Zealand's single worst workplace disaster in recent memory. Since the Pike River tragedy in 2010, there have been ten fatalities in the extractives sector.

Quarries, mines and tunnels are technically specialised, and diverse operations, often situated in remote locations. All quarries and most mines are surface operations and they have broadly similar hazards.

MinEx is very firmly of the view that the different nature of hazards and associated risks at extractives operations warrant separate and specific regulations to ensure these hazards and risks are managed appropriately.



Macrae's opencast mining operation



Lake lanthe alluvial gold mine, West Coast

MinEx's views and recommendations about the current regulatory regime

The Health and Safety at Work Act 2015

MinEx is supportive of the primary legislation – the Health and Safety at Work Act 2015 (“the Act”). It is a modern Act which establishes a strong framework for achieving sound health and safety outcomes. MinEx does not seek major changes to the Act, but clarifying the definition of a quarry and other minor administrative changes would enhance the Act.

The Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016, as amended July 2022

MinEx supports the changes made to the Mining and Quarrying Regulations in 2022, the balance of which will be implemented through to 2024.

The process of the review of these regulations took almost 10 years and despite repeated requests from the extractives sector for change, the process of review took far too long meaning the quarry and alluvial sectors will only now benefit from greater health and safety management.

The WorkSafe Inspectorate

Quarries, mines and tunnels should continue to be treated as high-hazard workplaces and managed by specialist mining inspectors from the High Hazards Unit (HHU) of WorkSafe, due to the complex requirements for health and safety at these sites. The specialist inspectorate was established following the recommendations made by the Pike River Royal Commission.

It is impossible however for the six current High Hazard inspectors to adequately regulate 101 mines, 8 tunnelling projects, and 955 quarries¹ spread across the country. Such low resourcing for WorkSafe's High Hazards Unit means any one of New Zealand's 1,065 operating extractives sites may only be visited once every several years.

We would hope that the incoming Government views health and safety as a significant funding priority. We believe in a collaborative approach to improving health and safety, involving the regulator, unions and industry, however this model can only work with an adequately funded and resourced regulator.

¹ *Extractives Industry Quarterly Report, WorkSafe March 2023*



Renwick Quarry, processing river-sourced stone, Marlborough

MinEx's views and recommendations about the Certificates of Competence (CoC) regime for the extractives sector

Three main agencies are relevant to the regulatory regime covering extractives health and safety:

- The Ministry of Business, Innovation and Employment administers the Mining Regulations which specify the roles requiring CoCs.
- Hanga-Aro-Rau (the Manufacturing, Engineering, Logistics and Technology (MELT) Workforce Development Council) is the industry training organisation which develops the unit standards.
- WorkSafe's Board of Examiners (BoE) specifies the unit standard requirements for each CoC and also assesses the applications.

It is crucial that the training and CoC requirements set out in regulation align with the obligations and responsibilities rightly imposed by the Act.

The BoE consulted on changes to the CoC requirements and establishment of a Safe Work Instrument (SWI) to replace previous gazette notices in 2023. There was initially no feedback from the BoE on the submissions made, nor a summary of submissions published, or any consideration of a transition period for those impacted by the changes prior to enactment of the SWI on 18 July 2023. This lack of due process has presented hardship to a number of those seeking to achieve their CoC (refer attached letter to Minister for Workplace Relations and Safety dated 23 June 2023 for which no reply was received).

MinEx has always been willing to offer sector input and feedback on proposed changes or improvements however the BoE in particular have shown little interest in the sector's views.



Health and safety at small mines and quarries

Many quarries, and some open cut metalliferous mines are small (with just two or three workers) and are on small footprints in remote and/or isolated locations. The hazards and risks here, although similar in nature to all mines, require different controls and monitoring to large open cut operations employing large numbers of workers.

Without implementing a Health and Safety Management System (HSMS) based on risk management principles, small mines and quarries generally have not effectively identified site hazards, developed solutions, nor managed hazards through procedures, rules and other controls which could otherwise have become the default prescription under the current duty-based or performance-based legislation.

MinEx has identified this gap and currently facilitates, with WorkSafe, a series of regional workshops to provide awareness and assist small mines and quarries with development and implementation of HSMS. While this training continues to be very beneficial, a large number of these attendees require mentoring and site-based assistance to implement the learnings from the workshops and to develop and implement workplace systems particularly for risk management techniques, safety meetings, safe work procedures and worker health plans.

Extractives industry associations MinEx, Straterra and the Aggregate and Quarry Association, together with E tū and First Union, support a model similar to that of the Australian Mining Industry Worker H&S Representative and the Toroawhi Pilot being carried out jointly by WorkSafe and the Forest Industry Safety Council, where Government funds a small mines health and safety advisor to work at small mines and quarries with workers and managers on the ground to improve worker engagement, worker health and risk management.



Mines Rescue underground at Macraes Mine

The New Zealand Mines Rescue Service

Following recommendations made by the Pike River Royal Commission, the Mines Rescue Act 2013 was reviewed. Regulations were introduced for the purpose of setting a risk-based levy structure to ensure adequate capacity and readiness to respond to mining and tunnel operation emergencies. A particular objective of the New Zealand Mines Rescue Service was to provide for an effective and co-ordinated response in the event of an emergency at all underground operations and to many open cast coal mines.

Although there are now no underground coal operations currently operating in New Zealand, the Mines Rescue Service does provide support and secondary response to two underground gold mines, tunnels under construction or being modified, and to operational tunnels including road and rail tunnels throughout New Zealand where long duration breathing apparatus sets are required. This capability sees the Mines Rescue Service called out to supply support when necessary, including training for the Whakaari White Island recovery operation and in recent times assisting WorkSafe at sites where there had been an incident caused or impacted by dangerous atmospheres.

The Mines Rescue Service has no financial support from any operational tunnels and with fewer levy-payers overall (due to the closure of underground coal mines), the levies on individual companies have had to increase as well as the Mines Rescue Service undertaking commercial training.

It is timely therefore that a review of the Mines Rescue Act and Regulations be carried out in conjunction with Fire & Emergency New Zealand. An industry, worker, Government and Mines Rescue Service working group should then review recommendations and how these should be implemented.



MinEx's recommended policies for Government

To maintain and improve health and safety outcomes and to ensure these are achieved without unnecessary regulatory obligations, we recommend the following 5 actions to Government:

Recommendation 1:

Funding of the HHU within WorkSafe be increased through review of the funding models available including potential extractives sector contribution through a health and safety levy. An industry funded or partially funded model would ensure greater consultation with, and involvement of the extractives sector.

Recommendation 2:

Fund a small mines health and safety advisor who will visit sites following their attendance at regional workshops and provide mentoring and assistance with developing and implementing site safety systems. The advisor will be accommodated and managed by MinEx and work collaboratively with WorkSafe, unions and employers to provide health and safety outcomes for workers in small extractives operations in a similar way to the successful Toroawhi Pilot in forestry. This could also be incorporated into a potential industry funded model.

Recommendation 3:

Engage MinEx early in the stages of extractives policy development to draw on a mandated industry view to achieve better health and safety outcomes. This is particularly relevant with worker health issues such as exposure to airborne hazards, hazardous substances and noise.

Recommendation 4:

Establish an industry, Mines Rescue Service and Government group to review the Mines Rescue Trust, purpose and funding.

Recommendation 5:

Recognise in infrastructure plans the need to have a continuous flow of tunnelling work so that a decline of tunnelling projects in New Zealand does not lead to good tunnellers leaving for work overseas. This reduces the skill level of workers in New Zealand and directly impacts on site safety.

23 June 2023

Hon. Carmel Sepuloni
Minister for Workplace Relations and Safety
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Dear Minister

Safe Work Instrument Certificates of Competence

MinEx is the national Health and Safety Council for New Zealand's extractives sector – the mining, quarrying, and tunnelling industry. Our principal purpose is to help the industry achieve its goal to be free from fatalities, injuries, and diseases.

Following enactment of changes to the Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations in 2022, several changes to certificates of competence (CoC) were needed to give effect to regulation changes to be in force from July 2023.

At the same time WorkSafe decided to convert existing gazette notices covering CoCs into a single Safe Work Instrument (SWI). As regulation changes take effect on 18 July 2023, the SWI needs to be in place from that date. WorkSafe released a draft SWI for consultation on 14 April 2023, with a very short two-week consultation period to 27 April 2023.

The consultation document did not contain any transitional arrangements for those currently studying toward their CoC, or for those that needed to transition from an existing CoC to another CoC due to regulation changes. To date we have had no feedback on submissions made, nor feedback on transitional arrangements. If there are not to be transitional arrangements, learners currently working toward their CoC will have to do significant extra training after 18 July 2023. It is also not clear what will happen to those who have completed their CoC unit standards before 18 July 2023, but have not applied for their CoC or had one issued.

There are also a number of unit standards for which training is not available, once again making those workers requiring the CoC after 18 July 2023 very uncomfortable. The lack of communication has left significant uncertainty for a number of quarry managers and mining personnel who face the prospect of not complying with regulations after 18 July 2023.

We would like to see a twelve-month transition period after enactment of the SWI to allow CoC holders and learners to comply with the regulations that are effective on 18 July 2023, to adequately communicate what is required to existing and future learners; to allow training providers time to develop material for the training of unit standards previously not included; and to ensure CoC holders who were competent before the regulation changes to obtain what they need to comply with regulations.

I would be happy to discuss this with you and your officials at your earliest convenience.

Yours sincerely

Wayne Scott, CEO

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MinEx Health & Safety in NZ Extractives



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