

Submission to WorkSafe on 'Consultation Proposed requirements for granting Extractives Certificates of Competence'



Submitted on 1 September 2017

MinEx

MinEx is the national health and safety council for New Zealand's extractive sector - the mining and quarry industry. Our principal purpose is to help the industry achieve its goal of being free from fatalities, injuries and diseases. MinEx is funded by the mining and quarry sectors – through the respective associations and a number of individual companies – with a mandate to;

1. be the main point of contact with WorkSafe New Zealand (“**WorkSafe**”) and other agencies on all extractive sector matters related to health and safety, and
2. through leadership and consultation develop an industry view on relevant legislation, regulations, guidelines and training matters, and work with WorkSafe and other agencies to adopt and implement those views, as appropriate.

To inform this submission, MinEx consulted with the Aggregate and Quarry Association, the Institute of Quarrying, and many other mining and quarrying operators, some of which made their own submissions referencing MinEx' work.

Introduction

MinEx makes this submission in response to WorkSafe New Zealand's consultation document *Proposed requirements for granting Extractives Certificates of Competence*, dated June 2017. MinEx' submission is in two main parts, which:

1. set out MinEx' ideal regime for Certificates of Competence (“**CoC**”) and qualifications. We recognise these proposals are outside the scope of WorkSafe's consultation document, and accordingly that amendments to regulations and the development of revised qualifications would be required to implement our proposals. Importantly however, we felt that by setting out our view of what the CoC and qualification regime *should* look like, we would promote discussion and the development of a plan to achieve outcomes that will directly contribute to safer workplaces, and
2. provide feedback specific to WorkSafe's consultation document.

The consultation document states that “the review was undertaken because the requirements have not undergone a thorough review for many years”. Although MinEx supports periodic policy reviews, the proposals would have benefited significantly had WorkSafe pre-engaged with key sector representatives such as MinEx. Given there were no apparent time-imperatives, we consider this was a missed opportunity.

By way of example, pre-engagement would likely have led to quite a different proposal on the site specific CoC as the overwhelming feedback from the quarry sector is that the proposal as set out in the WorkSafe consultation document is unworkable.

With the *Health and Safety at Work Act 2015* (“**HSAW Act**”) having been in place for over one year, MinEx considers the review would be a prime opportunity to align CoC requirements with obligations under the HSAW Act.

Summary of Submission

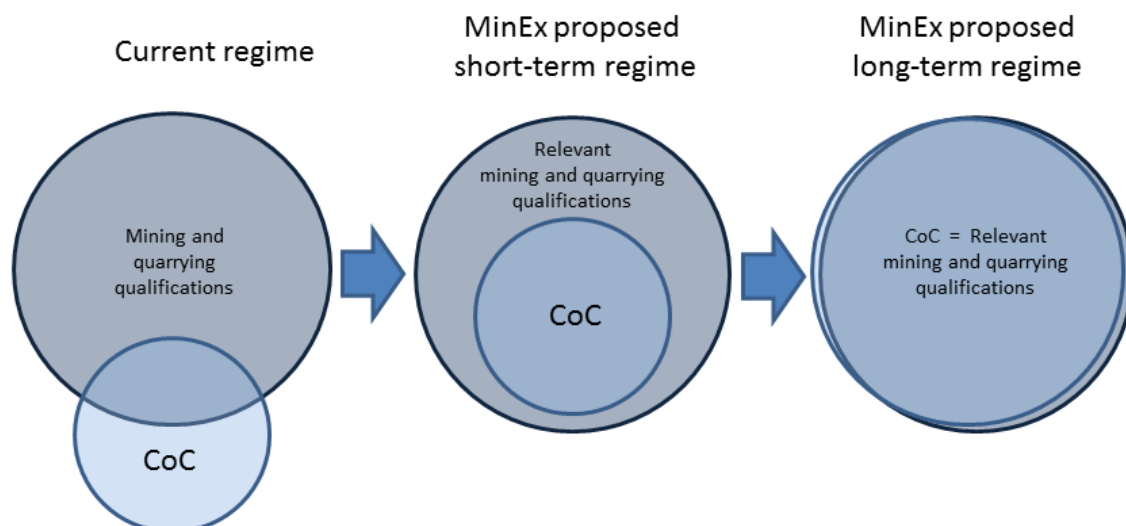
In terms of achieving an ideal regime, MinEx proposes that New Zealand Qualifications Authority (“NZQA”) qualifications replace the current *ad hoc* group of unit standards required of CoCs for safety-critical roles specified in regulation.

In response to WorkSafe’s consultation document, MinEx proposes that:

1. unit standards required for CoCs relate to the obligations imposed on personnel in safety-critical roles under the HSAW Act and *Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016* (“**2016 Mining Regulations**”);
2. a risk-based assessment tool be developed and used to determine those sites where a Manager of a Specified Quarry CoC would be appropriate; and
3. unit standard competency assessments be conducted in the workplace, and/or assignments be developed to ensure that assessment verifies competency in the student’s actual work environment.

Figure 1 below presents our concept visually, and is explained throughout this submission.

Figure 1. Transition to MinEx 'Ideal Regime'



Key issues with the status quo

WorkSafe’s consultation document correctly notes the importance of requirements aligning with the HSAW Act and key competencies including ‘operating and safety systems’ and ‘emergency management’.

In general however, the current CoC requirements, and indeed those put forward in WorkSafe’s consultation document, do not address the skills, knowledge and experience required for the safety-critical roles defined in Part 2 of the 2016 Mining Regulations.

For example, the current requirements for a quarry manager do not include fundamental competencies concerning development, implementation and maintenance of: risk management processes; health and safety management systems; and emergency management plans. The proposed Quarry Manager CoC also requires some unit standards which are not relevant (for example, unit standard 21629 to ‘evaluate plans to manage old workings and inundations in underground sites’).

CoC requirements should align with the obligations imposed by the HSAW Act and 2016 Mining Regulations, which require personnel in specified roles to:

- develop, implement and maintain a health and safety management system;
- develop and implement risk management processes including identification of fatal/principal hazards; which in quarries are traffic, ground stability, blasting and air quality/hazardous substances;
- develop and implement an emergency management control plan;
- train workers and assess their competence;
- investigate incidents/accidents;
- communicate and consult with workers; and
- supervise workers.

Competency assessments are not conducted in the workplace and therefore students are not being assessed on the skills and knowledge they require for the safety critical roles at their site.

MinEx' ideal regime for Certificates of Competence and qualifications

We propose that the CoC regime, which is currently comprised of *ad hoc* unit standards, be replaced with a formal qualification model of NZQA Certificates and Diplomas. **Figure 2 page 5** (prepared by Tai Poutini Polytechnic) outlines an example of how this model would work for safety-critical roles in quarrying.

MinEx is funded by the extractive sector with a mandate that includes working with WorkSafe to identify qualification outcomes for each safety-critical role which would reflect the skills and knowledge required for that role. We propose establishing a small and tightly focused Industry Advisory Group to establish, with WorkSafe and MITO, an appropriate framework aligning CoCs with NZQA qualifications.

Such qualifications would give new entrants to the industry a pathway for improving their skills and knowledge through the attainment of qualifications at various levels. **Figure 3 page 6** (prepared by Bathurst Resources Ltd) outlines an example of how this pathway would work.

Key benefits of a recognised formal qualification would be:

- improving health and safety outcomes by having better trained managers;
- providing new entrants to the industry with a pathway for improving skills and knowledge;
- establishing transferrable qualifications (through overseas mutual recognition arrangements); and
- improving the credibility of the sector through greater professionalism.

With the current focus on CoCs comprised of *ad hoc* unit standards, few industry personnel choose to study towards the existing qualification options, e.g. the mining and quarrying certificates and diplomas. This has meant that courses for unit standards not required for CoC completion are not attracting students. Integrating training requirements into a formal qualification would support greater uptake of study towards a qualification, which would deliver the benefits we outlined above. The pathway concept (as in qualification staircase¹) would support career progression and professional development. For operational roles, one could progress from being a mine worker to a supervisor, and then to a mine manager.

¹ Qualification staircases are where particular qualifications can be 'upgraded' through completion of further specified study, e.g. from a certificate to a diploma.

We also propose that students demonstrate their competence in their work environment, and that assignments containing examples of knowledge based on their work site are to be submitted.

We believe a transition period similar to the 24 months discussed in the current proposal would be a suitable timeframe in which to establish this new qualification model. Much work has already been done by MITO and training providers to establish qualifications within the new NZQA framework. This work can be completed in that time with suitable industry input into qualification outcomes, units of competency and training material. Our proposed Industry Advisory Group would assist in this work.

Figure 2. Qualification Framework (source: Tai Poutini Polytechnic)



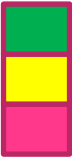

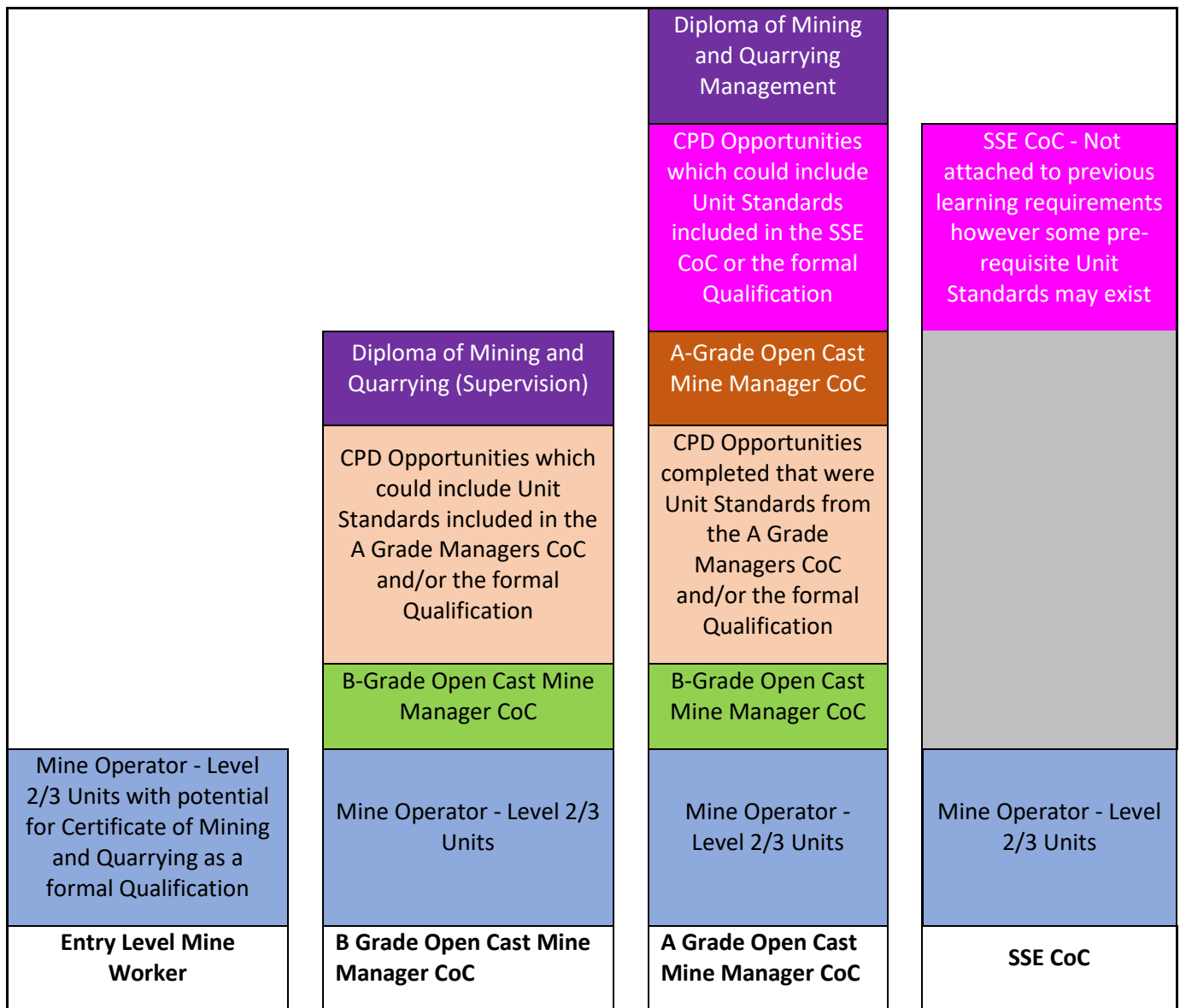
NZQA Level	Level 3	Level 4	Level 5 Certificate	Level 5 Diploma
Certificate of Competency	Operator	Supervisor	Site Specific / B Grade	A Grade
PROGRESSION Includes unit standards and experience				
NZ CERTIFICATE Level Descriptors	<p>A graduate of a level 3 certificate is able to:</p> <ul style="list-style-type: none"> • Demonstrate some operational and theoretical knowledge in a field of work or study • Select from and apply a range of known solutions to familiar problems • Apply a range of standard processes relevant to the field of work or study • Apply a range of communication skills relevant to the role in the field of work or study • Apply literacy and numeracy skills relevant to the role in the field in the field of work or study • Work under limited supervision • Demonstrate major responsibility for own learning and performance • Adapt own behaviour when interacting with others • Contribute to group performance 	<p>A graduate of a level 4 certificate is able to:</p> <ul style="list-style-type: none"> • Demonstrate broad operational and theoretical knowledge in a field of work or study • Select and apply solutions to familiar and sometimes familiar problems • Select and apply a range of standard and non-standard processes relevant to the field of work or study • Apply a range of communication skills relevant to the role in the field of work or study • Demonstrate the self-management of learning and performance under broad guidance • Demonstrate some responsibility for performance of others 	<p>A graduate of a level 5 certificate is able to:</p> <ul style="list-style-type: none"> • Demonstrate broad operational or technical and theoretical knowledge within an aspect(s) of specific field of work or study • Select and apply a range of solutions to familiar and sometimes familiar problems • Select and apply a range of standard and non-standard processes relevant to the field of work or study • Demonstrate complete self-management of learning and performance within defined contexts • Demonstrate some responsibility for the management of learning and performance of others 	<p>A graduate of a level 5 diploma is able to:</p> <ul style="list-style-type: none"> • Demonstrate broad operational or technical and theoretical knowledge within a specific field of work or study • Select and apply a range of solutions to familiar and sometimes familiar problems • Select and apply a range of standard and non-standard processes relevant to the field of work or study • Demonstrate complete self-management of learning and performance within defined contexts • Demonstrate some responsibility for the management of learning and performance of others
NZ CERTIFICATE IN MINING & QUARRYING Qualification outcomes at various levels	<ol style="list-style-type: none"> 1. Understand how health and safety is applied in the mining and quarrying industry, to undertake safety related tasks, under supervision 2. Demonstrate foundation understanding and ability to safely complete entry-level tasks related to mining and quarrying operations and processes under supervision 3. Communicate orally and in writing at a foundation level, within a mining and quarrying workplace, to contribute to team performance 	<ol style="list-style-type: none"> 1. Identify hazards and participate in risk assessments to work safely in a surface mining and quarrying workplace, and comply with workplace health, safety and environmental requirements 2. Apply knowledge of surface mining and quarrying operations, basic geology, and material properties to safely complete workplace tasks as directed 3. Safety and productively operate plant and/or machinery used in surface mining and quarrying 4. Adapt to change, communicate and work effectively as part of a team within a surface mining and quarrying workplace 	NZ Certificate at level 5 not currently available	<ol style="list-style-type: none"> 1. Supervise, lead and mentor staff and work teams at a mining and quarrying site 2. Apply mining and quarrying regulations and procedures, and employment policies and procedures to supervise a mining and quarrying site 3. Plan and lead risk assessment procedures and workplace health and safety and environmental procedures at a mining and quarrying site 4. Develop standard operating procedures and other workplace documentation for a mining and quarrying operation 5. Plan and lead workplace inspections and incident investigations at a mining and quarrying site 6. Communicate with mining and quarrying operational clients, internal staff and the general public to meet relevant workplace policies and procedures

Figure 3. : Visual example of building on Competency (Source: Bathurst Resources Ltd)



MinEx has considered the various roles, and the qualifications required for those roles. We have described these proposals as industry’s ‘ideal regime’ and do so in order to encourage the discussion and consideration required to change the current *ad hoc* and sub-optimal regime. MinEx believes this is an important step in improving workplace safety.

MinEx recognises that the implementation of these or similar proposals would require amendments to the relevant regulations. We outline our proposal for quarry CoCs below.

A-Grade Quarry Manager

MinEx proposes to rename the CoC A-Grade Quarry Manager to **Quarry Manager** and to replace the current requirement for a CoC containing a list of prescribed unit standards, with the **NZQA Diploma in Mining and Quarrying (Level 5)**.

B-Grade Quarry Manager

MinEx proposes to rename the CoC B-Grade Quarry Manager to **Quarry Supervisor** and replace the current requirement for a CoC containing a list of prescribed unit standards, with the **NZQA Certificate in Mining and Quarrying (Level 4)**.

Manager of a Specified Quarry

MinEx proposes to replace the current requirement for a CoC containing a list of prescribed unit standards, with the **NZQA Certificate in Mining and Quarrying (Level 5)**. We also propose that the oral exam for this CoC should be conducted at the site. This will facilitate the Board of Examiners panel (“**BOE**”) assessing the suitability of the site within the risk based framework (proposed as part of this submission) and the suitability of the applicant in relation to managing safety at that site.

The level descriptors of these qualifications better reflect the skills and knowledge required to successfully manage a quarry. In the case of a Manager of a Specified Quarry this qualification would also meet the requirements of the risk-based assessment proposed in this submission. The extractives industry, through an Industry Advisory Group should be involved in determining the qualification outcomes, at various levels, for each qualification in the extractives sector. Specified experience requirements should be retained.

This would involve:

- 1) identifying the skills and knowledge required for each level,
- 2) identifying if relevant and appropriate unit standards are currently available to fill the knowledge component, and
- 3) where necessary, developing units of competency to meet knowledge gaps.

Response to WorkSafe’s proposals

In this section we respond to the relevant points under the headings requested by WorkSafe in its consultation document.

Transitional arrangements

We are generally happy with the proposed transitional arrangements.

Defining ‘workings’

In general we support this attempt to clarify the experience required of each CoC holder but make two comments as follows.

Firstly, we consider the Board of Examiners has the power to judge applicants’ suitability. We are concerned that applicants may not apply at all due to misunderstanding what experience is required, even if they are in fact suitable. To address this risk, we suggest the following words be added: “if you are unsure whether your experience is adequate for a particular CoC, contact the BOE and they will advise on the suitability of your experience for the relevant CoC.”

Secondly, to promote the effective management of mechanical and electrical principal hazards, MinEx considers two years experience is more appropriate than the one year requirement proposed by WorkSafe. We consider two years experience is needed to properly understand and manage the risks and complexity of integrating maintenance systems.

First Aid Requirements

We support the clarification of unit standards required for a First Aid Certificate.

Leadership Unit Standards

We consider that Leadership Unit Standards should not be elective. Instead, each CoC should prescribe the required Leadership Unit Standards that are relevant to the skills and knowledge required for the safety critical role they hold. This may require the development of additional units of competency directly linked to the leadership skills required for each position.

This is consistent with moving to a qualification-based model for CoCs, and our position that CoC Unit standards should reflect the holder’s obligations under the HSAW Act and regulations.

CoC as a manager of a specified quarry

WorkSafe’s specified quarry/site specific criteria are too restrictive, and we propose a risk-based framework instead. We consider it would provide the best framework for providing Site Specific CoCs.

Appendix 1 page 14 provides an example of a risk-assessment framework which we have developed for discussion purposes.

Unit Standard requirements for CoCs

Proposed unit standards for A-Grade Quarry Manager, B-Grade Quarry Managers and Manager of a Specified Site

For the positions of A-Grade Quarry Manager, B-Grade Quarry Manager and Manager of a Specified Quarry (Site Specific) we submit that the unit standards in **Tables 1 – 3 pages 11-13** better reflect the skills and knowledge required to meet relevant obligations under the health and safety legislation.

We consider the A-Grade and B-Grade CoCs should be issued as either restricted (without blasting) or unrestricted (with blasting). This would mean that applicants only complete unit standards applicable to their operations i.e. a quarry supervisor at an alluvial quarry would not need to complete blasting unit standards if he/she only required a restricted CoC. CoC holders wishing to change from a restricted CoC to an unrestricted CoC would need to complete the relevant additional unit standards and make an application to the BOE.

The unit standards for a CoC should form part of a relevant qualification in the NZQA Qualification framework, e.g. the New Zealand Certificate or Diploma of Mining and Quarrying. For example, a B – Grade Open Cast Mine Managers CoC (Level 4) should fit within the larger range of units required to complete the *Diploma of Mining and Quarrying (Supervision)*.

Under the current regime:

- some CoC units standards are not part of the appropriate formal Qualification; and
- some useful and appropriate training is not required for a CoC.

Recipients of a CoC could then achieve their qualification through their continuing professional development (“CPD”), which is a requirement of their CoC.

On the Quarry Manager/Supervisor distinction

The Quarry Manager/Supervisor distinction will be a good fit for operations with multiple small sites and for mobile crushing operations where a plant is operating at multiple sites concurrently. Here the Quarry Manager would establish a new site and ensure the Health and Safety Management System is in place, while the supervisor would manage the day-to-day operations of the site.

Further points

We also submit the following points, and consider these to fit within the scope of the current consultation.

Tertiary qualifications in lieu of unit standards.

To recognise awarded qualifications, we propose that equivalent papers from degrees be accepted in lieu of completing a unit standard topic. For example, a degree in mining engineering will include the geotechnical related topics and it is unnecessary and inefficient to require this to be studied again. We note equivalency tests are common in other professions.

Assessments and examinations

We propose that a requirement be introduced that competency assessments for units standards be conducted at site and that assignments set require students to explain how they will apply, or are applying, the knowledge obtained in the workplace.

We propose that the oral exam for a Manager of a Specified Site be conducted at the site. This will facilitate the BOE Panel assessing the suitability of the site within the risk based framework and the suitability of the applicant in relation to managing safety at that site. The panel, which may be two or three, should include, where possible, an Inspector of Mines who is familiar with the site.

Applicability of quarry CoCs and qualifications to alluvial gold mines

Regulation 22, which covers the CoC for a manager of an alluvial mining operation, defines a CoC for an alluvial mining operation as an A Grade Quarry CoC, or if fewer than four employees, a B Grade Quarry CoC. We do not believe that the skills and knowledge required for an alluvial gold mine operation are adequately dealt with in the Quarry CoCs. The presence of old underground workings, the mining methods used, and management of water etc., are examples of significant differences between quarries and alluvial gold mines.

We propose that qualifications for Site Specific CoCs would be more relevant to the small alluvial gold sector. The risk based model would apply to alluvial gold mines. Alluvial gold mine applicants that meet the criteria for a Site Specific CoC would do a restricted CoC as blasting is not applicable.

For alluvial gold mines that do not meet the requirements for a Site Specific CoC, we propose that a new CoC for an alluvial gold mine be developed that reflects the skills, knowledge and experience required to safely manage an alluvial gold mine.

These proposals would require changes to Regulation 22 of the 2016 Mining Regulations and we strongly recommend that the Ministry of Business, Innovation and Employment consider this.

The oral exam for this CoC should be conducted at the site. This will facilitate the BOE panel assessing the suitability of the site within the risk based framework and the suitability of the applicant in relation to managing safety at that site. We consider the panel should, where possible, include an Inspector of Mines who is familiar with the site.

TABLE 1

Responsibilities of a Quarry Manager (A grade Quarry Manager)	Unit standards			Credits	
	No.	Level			
1) Develop, implement and maintain a Health & Safety Management System	28740	6	15	Establish & maintain the Occupational H&S Management System at an extractive site	
	7142	6	25		Demonstrate knowledge of the application of regulatory requirements to manage an extractive site
2) Develop & implement Risk Management processes including: Identification of fatal/principal hazards including: Traffic Ground control Blasting (ONLY REQUIRED FOR UNRESTRICTED COC) Air quality/Hazardous substances	28739	6	15	Establish the risk management system at an extractive site	
	8905	3	5	Demonstrate knowledge of construction and maintenance of working surfaces at an extractive site	
	8899	4	8	Operate and maintain stockpiles and tipheads at an extractive site	
	15665	4	5	Demonstrate knowledge of geology and geotechnical features and failures for surface extraction	
	New std	3	3	Read and interpret a quarry plan	
	17694	3	10	Demonstrate knowledge of explosives and their properties (Unit to include knowledge of misfires)	
	21152	4	10	Demonstrate and apply knowledge of storing explosives for use	
3) Develop and implement an emergency response plan	16810	6	10	Develop a workplace emergency management plan	
4) Conduct workplace inspections and audits	7143/8902	5	10	Prepare a safety inspection plan, inspect and report on safety and operations at an extractive site (This is a combined Unit and would include worker health requirements under Reg 108)	
5) Train workers and assess their competence	28982	5	5	Develop standard operating procedures for an extractive site	
	18337	4	5	Determine and co-ordinate training and development of a team LEADERSHIP UNIT	
6) Investigate incidents and accidents	16686	5	8	Conduct an incident investigation at an extractive site	
	17279	2	2	Demonstrate knowledge of a CIM system	
7) Communication and consultation with workers	11099	4	4	Develop strategies for communicating in a culturally diverse workplace LEADERSHIP UNIT	
	21335	4	5	Lead team to achieve an objective LEADERSHIP UNIT	
8) Supervise workers	26855	4	10	Analyse Human factors present in workplace practices at an extractive site	
	23648	3	5	Demonstrate knowledge of and follow safe working practices at an extractive site	
	Unrestricted		160	(Note: 160 credits are required for Diploma under the NZQA requirements)	
	Restricted		140		

Note:

1) The following unit standards have been added to the BOE proposal as it is believed they better address the requirements of the HSWA:

28739	This unit replaces the level 5 unit on risk management systems currently included
28740	Establish and maintain the Occupational H&S Management System at an Extractive site
16686	Develop a Workplace Emergency Plan

These units are currently core units in the SSE CoC. As most Quarry Managers have the responsibility for safety management at their site (effectively acting as SSE also) we believe these units are critical to ensure Quarry Managers have the skills and knowledge to meet their obligations.

2) The following unit standards have been removed as it is believed these unit standards do not add any value to the skills and knowledge required for a Quarry Manager to meet his/her obligations under the HSWA:

- 21155
- 25878
- 15658
- 3271
- 21629
- 21661
- 22057
- 25876
- 29553
- 29554

It is acknowledged that some of these units will be picked up once the Diploma in Mining & Quarrying replaces the current CoC requirement.

3) We believe that leadership units should be prescribed based on the skills and knowledge required to meet a Quarry Manager's obligations under the HSWA. The current proposal allows applicants to choose units that may not necessarily add to the skills and knowledge required (as listed above).

4) We recommend that units 8902 and 7143 be merged and include worker health requirements such as health surveillance and exposure monitoring.

TABLE 2

Responsibilities of a Quarry Supervisor (B grade Quarry Manager)		Unit standards			
		<u>No.</u>	<u>Level</u>	<u>Credits</u>	
1) Implement and maintain a Health & Safety Management System		28742	4	8	Explain H&S Legislation, and supporting documents applicable to an extractive site
2) Implement and participate in Risk Management processes including: Identification of fatal/principal hazards including:		28983	5	10	Carry out the risk management process at an extractive site
Traffic		8905	3	5	Demonstrate knowledge of construction and maintenance of working surfaces at an extractive site
Ground control		8899	4	8	Operate and maintain stockpiles and tipheads at an extractive site
		15665	4	5	Demonstrate knowledge of geology and geotechnical features and failures for surface extraction
		New std	3	3	Read and interpret a quarry plan
Blasting (ONLY REQUIRED FOR UNRESTRICTED COC)		17694	3	10	Demonstrate knowledge of explosives and their properties (Unit to include knowledge of misfires)
Air quality/Hazardous substances		21152	4	10	Demonstrate and apply knowledge of storing explosives for use
3) Implement an emergency response plan		New std	4	4	Implement a workplace emergency management plan
4) Conduct workplace inspections and audits		28793	4	4	Conduct safety inspections for extractive operations
5) Train workers and assess their competence		28982	5	5	Develop standard operating procedures for an extractive site
		18337	4	5	Determine and co-ordinate training and development of a team LEADERSHIP UNIT
6) Investigate incidents and accidents		16686	5	8	Conduct an incident investigation at an extractive site
		17279	2	2	Demonstrate knowledge of a CIM system
7) Communication and consultation with workers		11099	4	4	Develop strategies for communicating in a culturally diverse workplace LEADERSHIP UNIT
		21335	4	5	Lead team to achieve an objective LEADERSHIP UNIT
8) Supervise workers		26855	4	10	Analyse Human factors present in workplace practices at an extractive site
		23648	3	5	Demonstrate knowledge of and follow safe working practices at an extractive site
		Unrestricted		111	(Note: 80 credits are required for a level 4 Certificate under the NZQA requirements)
		Restricted		91	

Note:

1) We have based this Coc on the requirements of an Open Cast Coal B Grade CoC, which is currently gazetted as an acceptable Supervisor CoC.

2) The unit standards chosen cover the skills and knowledge required by a quarry supervisor to meet his/her obligations under the HSWA, under the guidance of a Quarry Manager holding the relevant CoC. It is acknowledged that some of the units removed from the current proposal, will be picked up once the Certificate in Mining & Quarrying replaces the current CoC requirement.

3) We believe that leadership units should be prescribed based on the skills and knowledge required to meet a Quarry Supervisor's obligations under the HSWA. The current proposal allows applicants to choose units that may not necessarily add to the skills and knowledge required (as listed above).

4) We recommend that unit 28793 be extended to include worker health requirements such as health surveillance and exposure monitoring.

5) We believe a new unit standard should be developed on implementing an emergency plan. This would be at a lower level to the 16810, level 6 unit.

TABLE 3

Responsibilities of a Manager of a Specified Quarry	Unit standards			
	No.	Level	Credits	
1) Implement and maintain a Health & Safety Management System	28742	4	8	Explain H&S Legislation, and supporting documents applicable to an extractive site
2) Implement and participate in Risk Management processes including: Identification of fatal/principal hazards including: Traffic Ground control Blasting (ONLY REQUIRED FOR UNRESTRICTED COC) Air quality/Hazardous substances	28983 8905 8899 New std 17694 21152	5 3 4 3 3 4	10 5 8 3 10 10	Carry out the risk management process at an extractive site Demonstrate knowledge of construction and maintenance of working surfaces at an extractive site Operate and maintain stockpiles and tipheads at an extractive site Read and interpret a quarry plan Demonstrate knowledge of explosives and their properties (Unit to include knowledge of misfires) Demonstrate and apply knowledge of storing explosives for use
3) Implement an emergency response plan	New std	4	4	Implement a workplace emergency management plan
4) Conduct workplace inspections and audits	8902 28793	5 4	4 4	Prepare a safety inspection plan for extractive operations Conduct safety inspections for extractive operations
5) Train workers and assess their competence	28982 27565	5 3	5 4	Develop standard operating procedures for an extractive site Train colleagues in the workplace
6) Investigate incidents and accidents	16686 17279	5 2	8 2	Conduct an incident investigation at an extractive site Demonstrate knowledge of a CIM system
7) Communication and consultation with workers	1312 21335	3 4	3 5	Give oral instructions in the workplace Lead team to achieve an objective
8) Supervise workers	23648	3	5	Demonstrate knowledge of and follow safe working practices at an extractive site
		Unrestricted	98	(Note: 80 credits are required for a level 4 Certificate under the NZQA requirements)
		Restricted	78	

Note:

1) The following unit standards have been added to the BOE proposal as it is believed they better address the requirements of the HSWA:

8899	Operate and maintain stockpiles and tipheads at an extractive site
17694	Demonstrate knowledge of explosives and their properties (Unit to include knowledge of misfires)
21152	Demonstrate and apply knowledge of storing explosives for use

The two blasting units will only apply if the applicant is seeking an unrestricted CoC.

2) The following unit standards have been removed as it is believed these unit standards do not add any value to the skills and knowledge required for a Manager of a Specified Quarry to meet his/her obligations under the HSWA:

- 3271
- 21155
- 21661
- 22057
- 25878
- 29553
- 29554

It is acknowledged that some of these units will be picked up once the Certificate in Mining & Quarrying replaces the current CoC requirement.

3) We believe that leadership units should be prescribed based on the skills and knowledge required to meet a Manager of a Specified Quarry's obligations under the HSWA. The current proposal allows applicants to choose units that may not necessarily add to the skills and knowledge required (as listed above).

4) We recommend that unit 28793 be extended to include worker health requirements such as health surveillance and exposure monitoring.

5) We believe a new unit standard should be developed on implementing an emergency plan. This would be at a lower level to the 16810, level 6 unit.

APPENDIX 1

Risk based assessment - Specified Quarry

	Rating	Score
Number of employees		
1 or 2	1	1
3 or 4	2	
Over 4	3	
Blasting		
No	0	
Yes	2	2
Inrush risk (working below water level)		
Low	0	0
Medium	1	
High	2	
Working benches (not including excavator pads or stepdowns in alluvial operations)		
None	0	
1 bench	1	1
Multiple benches	3	
height of benches /stockpiles		
Under 5 m	0	
6 - 10 m	1	1
Over 10 m	2	
Voids/Underground workings		
None	0	0
Abandoned workings	2	
Existing underground workings	3	
Crushing and Screening		
None	0	
Screening only	1	
Crushing and screening	2	2
	Total	7

Criteria for Specified Quarry CoC

- 1) Operating for a period of not less than 24 months (does not have to be continuous)
- 2) First Aid certificate
- 3) Appropriate xperience
- 4) Risk score of 7 or less

Example here:

2 man operation, with blasting, single bench up to 10 metres, crushing and screening.