

Submission of

The New Zealand Mining Industry Safety Council (MinEx)

to the

Labour and Commercial Environment Group Ministry of Business, Innovation & Employment

Safe Mines: Safe Workers - Implementing recommendations of the Royal Commission on the Pike River Coal Mine Tragedy Discussion Document

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INTRODUCTION

- 1. MinEx¹ welcomes the opportunity to submit on the Ministry of Business, Innovation and Employment discussion document "Safe mines: safe workers"². We note the submission deadline of 1 July 2013, noting also that a health and safety in employment Bill will have been introduced into Parliament by that date, and that consultation on the content of regulations is foreshadowed for July/August.
- 2. In stepping up its engagement with government on health & safety, the New Zealand minerals sector has restructured its health and safety representative body, MinEx, with an expanded budget and secretariat (through Straterra), a new business plan, focused accountability and the appointment of a CEO, mining engineer and industry consultant, Les McCracken.
- 3. Straterra provides a collective voice for the New Zealand minerals sector. Its membership comprises more than 90% by value of NZ minerals production, exploration, scientific research, engineering and geotechnical services, and legal, financial, environmental and other consultancy services.
- 4. The organisations that participated in the MinEx-led industry consultation process were:
 - Aggregate and Quarry Association (AQA);
 - NZ branch of the Institute of Quarries (IOQNZ);
 - Tai Poutini Polytechnic (School of Mines);
 - NZ branch of the Australasian Institute of Mining and Metallurgy (AusIMM);
 - Coal Association;
 - Contractors' Federation;
 - Engineering, Printing and Manufacturing Union (EPMU);
 - Minerals West Coast; and,
 - Straterra.

While these entities have all contributed to this submission, in good faith, consensus has not been reached on all issues. Each entity retains the right to present its own case, where appropriate, as they have done.

- 5. MinEx has 46 member companies and these are listed in Attachment 1. Accordingly, most of the companies active in the mining industry have been invited to participate in developing this submission as have most of the professionals through the AusIMM and the IOQNZ.
- 6. The extensive engagement between the Pike River Implementation Team and MinEx is acknowledged, and appreciated. It is clear there is a significant degree of alignment between government and industry on the future shape of the mining regime. Accordingly, the Government's objectives for the new mining regime are supported: to improve public confidence in the New Zealand mining sector, and to bring mining health and safety regulation into line with international best-practice.

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¹ MinEx is a national Health & Safety Council for the New Zealand minerals industry. Its main purpose is to help industry to improve its health and safety performance, and to provide centralised industry representation on matters relating to health and safety.

² MBIE "Safe mines – safe workers" at http://www.dol.govt.nz/consultation/safe-mines/index.asp



- 7. It is acknowledged the driver for the reforms is the Pike River Coal Mine tragedy of November 2010. Like the Government, industry is committed to ensuring to the maximum extent possible that such an event does not occur again in New Zealand. We believe this is a realistic goal.
- 8. Therefore, MinEx supports the Government's intention to uphold and implement all of the Pike River Royal Commission's 16 recommendations, with the exception of that part of Recommendation 11, which states: "Legislative changes should: allow unions to appoint check inspectors with the same powers as the worker health and safety representatives", and similar statements. There is no broad support for this across the industry. Industry's issues in relation to mine and industry H&S representative roles will be addressed by industry in submissions on the Bill.
- 9. Recall that MinEx and a number of associated organisations, e.g., the Coal Association and Straterra, as well as individual companies, submitted in detail to the Royal Commission. We observe that many of industry's recommendations were consistent with the Royal Commission's findings and recommendations.
- 10. We broadly support the proposed regulatory framework:
 - Broadening the RC recommendations in relation to underground coal to all mining;
 - Mining hazards and risk management
 - Training and qualifications;
 - Worker participation systems, in principle (see below);
 - Emergency measures; and,
 - Transitional arrangements

<u>but</u>, with the proviso that the application of the framework to the whole industry takes a risk-based approach to avoid burdening sectors of the industry and smaller operations with inappropriate compliance costs.

- 11. In addition to this important proviso, we have identified room for improvement, particularly in relation to:
 - The way the proposed changes are likely to be reflected in the structure of the legislation;
 - The coverage of opencast mines and quarries;
 - The proposals for worker participation in terms of their workability;
 - Issues to do with the proposed safety-critical roles; and,
 - Issues relevant to underground coal mines that have inappropriately spilled over into underground metal and opencast operations.
- 12. The key theme throughout the submission is that the new regime must be firmly focused on the appropriate management of hazards via a risk assessment process that determines:
 - What Principal Hazards are present;
 - How Principal Hazards are to be managed within guidelines, via regulations or codes of practice
 - What Principal Control Plans are required;
 - The scope and content of the Principal Control Plans within guidelines, via regulations or codes of practice;
 - Which of the nominated Engineering Management Safety Critical support roles are required;
 - Which Safety-Critical roles can be held by one person; and,
 - The level of competency required in the Engineering Management support roles.

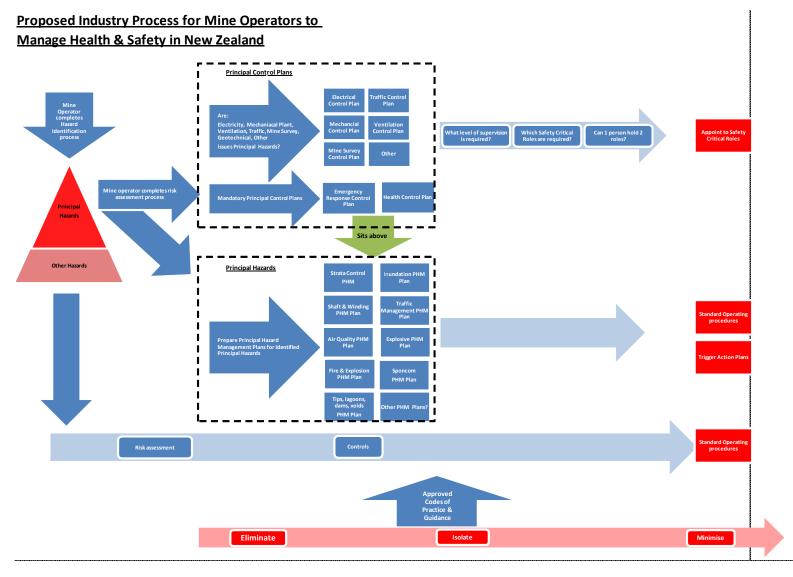


This is illustrated in the process diagram to follow.

- 13. While this is a minerals industry submission, other interest groups and companies including the AQA, IOQNZ, AusIMM NZ, Contractors' Federation, OceanaGold, SENZ and the EPMU have forwarded submissions to MinEx for review. MinEx also circulated various draft copies of its submission to many individual companies and interest groups. The submissions listed previously all show good alignment with this MinEx submission, with differences being matters of detail. For example, the Contractor's Federation has addressed tunnelling aspects in more detail than the MinEx submission.
- 14. This submission is divided into two parts: comment on high-level aspects of the proposed mining regime, followed by detailed material in tabular form (Appendix II), addressing specific issues of interest and concern to the sector and the specific questions posed in the discussion document.
- 15. MinEx looks forward to continued engagement with officials towards meeting the Government's goal of having the new regime in place by 1 January 2014.









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EXECUTIVE SUMMARY/HIGH LEVEL SUBMISSIONS

Scope of Coverage of New Regime - chapter 1

- 16. MBIE proposes that all mining operations should fall initially within the new mining regime, and notes that every mining operation in New Zealand, therefore, has the potential to fall within the scope of the High Hazard Unit (HHU). The HHU cannot administer every mining operation in New Zealand; it must prioritise. To give effect to this, MBIE proposes to adopt a test to allow some quarry and tunnel operations to fall outside the scope of the proposed legislation. For each of the four proposed tests for quarries and tunnels, only one is directly related to risk and they are, therefore, wrongly focused. At issue here is the existence or otherwise of principal hazards, not the size or type of the mining operation per se. In addition, allowing some mining operations to be exempt from the proposed regime creates unnecessary anomalies and will lead to suboptimal safety performance outcomes.
- 17. MinEx believes that all mining operations should come under the new regime, and that the HHU should then prioritise its resources on the basis of risk, meaning that some operations will fall under the HHU while others will fall under the general industry inspection group but that all mining operations will be subject to the same law and regulations.
- 18. Making all mining operations subject to the new regime highlights another issue: that the legislation needs to be able to cope with a wide range of mining operations from the very small to the large, underground to opencast, those with principal hazards, and those with none, or very few principal hazards. As currently proposed, the new regime would make most small operations uneconomic by imposing large mine solutions to small mine issues.

MinEx believes, that by amending specific aspects of the proposed regime:

- Requiring that mining operations carry out a high-level risk assessment to determine:
 - which safety-critical roles are appropriate;
 - Which principal hazard management and control plans are required;
 - The scope of the Principal Control Plans;
 - Which Engineering Management roles are required and the competency level required for these roles; and,
 - o Which Safety Critical roles can be held by a single person;
- Removing detail from the regulations; and,
- Using codes, which may be approved or industry codes,

the regime will be more relevant to the full range of mining operations.

Differentiation between coal mining and other types of mining – chapter 1

- 19. MinEx agrees with the concept that hazards would be managed only where they exist, and we interpret that to mean that specific methods for managing health and safety in underground coal mines would, in many or most cases, have no relevance to other types of mining operations.
- 20. On that logic, we observe that the discussion document contains material in several places that is relevant to underground coal mining but to no other sub-sector. Unaddressed, these proposals would, or could force unnecessary compliance requirements on opencast mines (including quarries and alluvial gold operations), some tunnels, and on underground metalliferous mines, or unworkable or counter-productive requirements on those operations.



- 21. Specifically, we recommend that the new legislation provide clear direction for each of the matters relevant to:
 - All mines;
 - Opencast mines, although we note that that the AQA and IOQNZ advocate a separate section for Quarries);
 - Underground metalliferous mines;
 - Underground coal mines; and,
 - Tunnels.
- 22. This will entail duplication; however, we believe the benefits of this approach to legislators, regulators and mine operators would greatly outweigh any inconvenience. In terms of tunnels, those that are part of a mining operation would fall within the new mining regime while any other type of tunnel would be covered explicitly.

Training and qualifications - chapter 3, chapter 4

- 23. The proposal to introduce a new set of safety-critical roles will require further work: specifically, the new competency requirements, and the transitional arrangements. As a general comment, new training courses will, in some cases, need to be developed, which will take time. It will then take time for training to occur. In addition, the training content needs to be approved by the new Board of Examiners so, unless this Board can be established by 1 January 2014, there will be a time delay before training development can start and training can be approved by the Board. A much longer transition will therefore be needed for many operators. That could be determined on a case-by-case basis, on application to the regulator. MinEx submits it would be best resolved by setting specific time periods, within which each activity in the sequence needs to be completed, which would then define the transition period for establishment of the new roles.
- 24. Our detailed submissions also recommend changes to the applicable qualifications for the different safety-critical roles, and for site health and safety representatives, and industry health and safety representatives (see also below). They also recommend that the safety-critical roles required at different operations, and whether or not some roles can be held by the same person, should be determined under the high-level risk assessment suggested above.
- 25. The Human Factors story is one that is poorly understood. Given that the Human Factors approach was taken up by similar high-hazard industries such as aviation, petrochemicals, and medicine some years ago in response to similar issues as those faced at the Pike River Coal disaster, MinEx strongly supports the proposals relating to Human Factors.
- 26. We recommend further engagement between industry and officials on these issues, as the regulatory framework is further developed and finalised.

Industry health and safety representatives

- 27. MinEx agrees with the concept of mine or industry health and safety representatives in underground coal mines, however, advises that there are some companies and some sectors that do not support the concept, either in total, or as proposed by the Government. MinEx also submits that the proposed competency and by inference, level of experience will restrict that role to underground coal mines.
- 28. MinEx suggests that the Bill as written establishes a regime for mine and industry health and safety representatives that risks being unworkable in practice. Accordingly, MinEx will submit to the Transport and Industrial Relations Select Committee with substantive proposals for



improving the Bill, in connection with worker participation systems, and mine and industry health and safety representatives.

The Regulator

29. The Royal Commission noted that the Regulator played a significant role in the Pike River disaster (Vol 1, p 15 of the report):

"The underlying causes

The commission has endeavoured to establish both the operational factors and the systemic reasons that contributed to the tragedy. The inquiry was not limited to events at the mine, but extended to the actions of the regulators and the effectiveness of mining regulation and practice in New Zealand.

Some major themes became evident in the course of the inquiry:

- This was a process safety accident, being an unintended escape of methane followed by an explosion in the mine. It occurred during a drive to achieve coal production in a mine with leadership, operational systems and cultural problems.
- Such problems coincided with inadequate oversight of the mine by a health and safety regulator that lacked focus, resourcing and inspection capacity.
- The legal framework for health and safety in underground mining is deficient.
- Those involved in the search and rescue were very committed, but the operation suffered from an absence of advance planning for a coal mine emergency and from a failure to properly implement the principles of the New Zealand co-ordinated incident management system (CIMS).
- The families of the 29 men received generous community support, but would have benefited from better communications during the search, rescue and recovery phases."
- 30. In "Safe mines: safe workers", very little information is presented on how the Regulator intends to address the serious deficiencies within what is now MBIE, and will be WorkSafe New Zealand, that contributed to the disaster. The HHU will need significantly more resources than it has available currently if it is to match the changes that the rest of the industry will need to make to avoid another disaster like Pike River.

Concluding remarks

- 31. Despite the pace at which the regulatory reform programme is being pursued, to date the process has been run in a manner that fully recognises the relevance and importance of industry and expert input. It is appropriate that this work is done with the urgency applied. Industry has confidence in the Government's process, as it has been applied to date, and many of the issues raised here are matters of detail.
- 32. We urge the Government to ensure:
 - Fit-for-purpose regulation for each different type and scale of mining;
 - More work to determine training qualifications for the new safety-critical roles;



- A fresh look at worker participation systems, and mine and industry health and safety representatives;
- Adequate resourcing for the Regulator; and,
- Flexibility in the transition to the new regime, in particular, to recognise the time it will take to develop new qualifications, and/or train staff into the new roles.



APPENDIX I - MINEX MEMBERSHIP AS AT 31 MAY 2013

Aggregate & Quarry Association

Blackhead Quarries Ltd

BlueScope Steel

Doug Hood Mining Ltd

Fonterra Glencoal

Fulton Hogan Ltd

Golden Bay

H G Leach

Harker Underground Construction

Higgins

Holcim

Horokiwi Quarry

Ihumatao Quarries

Imerys Tableware

Infracon

J Swap Contractors

Kai Point Coal

Materials Processing Ltd

McConnel Dowell Constructors Ltd

New Talisman

Oamaru Shingle Supplies

Oceana Gold

Origin Quarries

Perry Resources

Prenter Aggregates

Pukepoto Quarries Ltd

Rangitikei Aggregates

Ravensdown

NZ Coal

Selwyn District Council

Sibelco NZ

Solid Energy

Southern Aggregates

Stevenson Resources

Taupo Scoria

Waitotahi

Websters Hydrated Lime

Whitestone

River Run Products Ltd Road Metals Co Ltd Southern Aggregates Ltd Stevenson Resources Ltd Taupo Scoria Ltd

Taylor's Contracting Co Ltd
The Isaac Construction Co Ltd

Vickers Quarries Ltd Victory Lime 2000 Ltd Waiotahi Contractors Ltd Winstone Aggregates Wirtgen New Zealand



APPENDIX II - DETAILED SUBMISSIONS

This Appendix is divided into two sections:

- Issues
- Safe Mines safe workers responses to questions in the document.

Issues

Chapter	Page	Reference	Issue	Solution
Vol 1, 01 Vol 2	11-12 92	Para 1-12	Definition of Mining Operation. The definition material is unclear and has led to a number of questions being raised by operations that process materials supplied by the mining industry. For example, a land-based concrete sand excavation operation would likely fall under the scope of the proposed regime but it is unclear if a concrete batching plant with a stockpile would. To quote MBIE working paper 2b: Use N-C definition of all activities associated with the extraction of minerals. Includes associated exploration, and processing of minerals, and tunnels and quarries of specified types. Includes preparatory, maintenance, abandonment and decommissioning of the mine and associated works (refer to WP2a). The use of the word "associated" is the issue here. The concrete batching plant might therefore be caught under the new regime unless the definition required there to be a mine first and then	A clear definition of the term "Mining Operation" is required that includes only those operations that have excavation and downstream operations. The Tasmania legislation, which has picked up the Australia model legislation, has a good working definition.



Chapter	Page	Reference	Issue	Solution
			to include all activities associated with that mine.	
Vol 1, O1	11	Para 5-7	In scope consistency. Quarries vs other opencast mines: Quarries may be exempted through para 5 yet alluvial gold mines are caught through para 2 as "opencast metalliferous mines". This means gold mines are always in scope despite an alluvial gold operation being identical to an alluvial gravel operation except that the gold mine dumps the aggregate as waste.	Amend para 2 to include all operations Amend para 3-11 to allow a risk assessment process to determine what Principal Hazard Management Plans and Principal Control Plans are required; the scope of these plans; which safety critical roles are required, which can be filled by the same person and the competencies required for these engineering roles.
			Similarly, small opencast coal and minerals operations are within scope yet would be expected to have a similar risk profile to quarries. Subsequent requirements on opencast metalliferous mines illustrate the issue with page 28, para 50, requiring a small alluvial gold operation to employ a mine manager probably combined with the senior site executive, an electrical engineering manager and a mechanical engineering manager. It is understood that some roles may be combined but the criteria for combining roles is not known. It is proposed that in-scope mining operations will come under the new regime and fall under the HHU. Out-of-scope mining operations would come under the current HSE Act and fall under the general inspection group. Generic safety issues;	



Chapter	Page	Reference	Issue	Solution
			Paras 1-5 allow quarries and tunnels to pass through a second test with respect to scope. In the case of quarries, only 1 of the criteria is directly related to risk. The same applies to the tunnel test. Oddly, the use of explosives is included in the tunnel criteria but not in the quarry criteria. Explosive use risk, in these cases, is related to the explosives and not the environment in which they are used. The new regime is intended to improve safety performance in mining operations. Differentiating operations, as proposed, will lead to inconsistencies in safety performance across the mining industry - with some mines with potentially no major hazard assessed against the new regime by the HHU, and some which may have significant hazards assessed against generic safety law and by a different section of MBIE. If the proposed exclusion tests in paras 1-11 are retained, many more operations will be captured under the HHU coverage than MBIE are expecting and many of these would not pass a more rigorous risk-based hurdle to warrant inclusion for inspection by the HHU. The objective around paras 1-11 wording is to introduce a risk-based process to determine what parts of the safety legislation apply to operations with different risk profiles. It is generally accepted that all underground mining operations, including tunnels, are high-hazard operations and should be covered by the new regime. Para 2 could therefore be amended to give effect to this.	



Chapter	Page	Reference	Issue	Solution
			It is also generally accepted that a few opencasts (which includes quarries) are high-hazard operations while most are not. The challenge then is to develop legislation that lifts the safety performance of all operations while minimising compliance costs. Page 21 contains a diagram that shows the safety management process commencing with a risk assessment process covering all hazards. The proposal does not always clearly indicate that this process is being followed. Furthermore, the need for the safety-critical roles as well as the ability for an operation to have more than 1 role filled by the same person should be covered by this risk assessment process.	
Vol 1, O1	11	Para 5	Quarry scope issue. The purpose of the reference to "Quarry faces" of more than 3.5 metres is unclear. Are these the individual faces or the total quarry face? In a shallow alluvial pit these may be the same but in a multiple bench pit they are not. The 3.5m height is too low and should be increased to 10m.	The submission is to remove these criteria and replace with a risk assessment. If retained, amend the reference: Quarry Opencast total depth, including all faces, faces of more than 3.5 10 metres
Vol 1, 02	24	Para 25	The outcomes of the audits need to be available to all mine workers including contractors	Add this
Vol 1, 02	25	Para 33	Principal Control Plans . MinEx supports the Contractors' Federation submission on this issue which is: There is more than one method of identifying and then managing identified hazards and risks. The important aspect is to ensure that identified hazards and risks are properly managed and the	The regulations should allow for other systems to manage hazards identified other than PCPs, as long as a robust and easily identifiable system is used to identify, manage, monitor, review and relay to all the hazards and risks identified.



Chapter	Page	Reference	Issue	Solution
			system used to develop this system and relay it to all concerned along with monitoring and feedback processes. There is always a strong possibility that when hazards and risks are dealt with individually they do not flow through the whole process being undertaken on site. They leave process gaps. The regulations should not exclude other processes of dealing with PCPs.	This could be achieved by placing the detail around PCPs in a code rather than in the regulations.
Vol 1, 02	25	Para 35	Additional PCPs. Industry view sought on need for geotechnical and isolation PCPs.	Industry view supports creation of these PCPs.
			and isolation PCPs.	In the case of isolation, this avoids the need to duplicate procedures in mechanical and electrical PCPs.
				For geotechnical matters, it would seem more sensible to place all geotechnical issues under a PCP rather than within each PHMP.
Vol 1, 02	32	Para 71	Monitoring trends. This function is currently carried out by MinEx.	Duplication to be resolved.
Vol 1, 02	25	Para 34	With the generation of PHMPs, it is important that we avoid operating in "silos". There needs to be some requirement to assess the whole system to avoid both confusing overlaps and gaps.	This can be achieved through the PCPs which should link all activities together.
Vol 1, 03	39	Para 9	SSE must hold manager certificate. It is questionable as to whether or not this is required. If the SSE was an experienced mining engineer with good management and leadership skills	Delete the requirement for the SSE to hold a manager's certificate. Use the Queensland regulations regarding the



Chapter	Page	Reference	Issue	Solution
			and the experience included operational management, then this is arguably more important than having the same certificate of competency as the mine manager.	role of the SSE.
			NZ will not have sufficient people with manager certificates for companies to comply.	
Vol 1, 03	39	Para 11	Ventilation officer. There will be a transition issue here with the required qualification taking time to gain. Page 41, para 28, requires the new roles to have the required	Either extend the transition period for these roles, or give the Chief Inspector discretionary powers to approve individual company solutions to issues raised in relation to the time required for training.
			competencies on appointment. Page 76 gives existing operations 12 months to comply which presumably means 12 months to appoint a Ventilation Officer, inferring 12 months' time for training for this role.	It is important that industry ensures that the level and qualifications for ventilation officer are not confined to Australia's versions. These courses and these Australian qualifications are not the only, nor necessarily the best, for these roles. NZ can train ventilation officers (and the other roles) competently within the NZ training framework, and the legislation should specify what they need to know, as opposed to a specific qualification. It is important that we do not legislate that we must use Australian training systems and standards.
Vol 1, 03	39	Para 12- 13	Engineering Manager roles. Transitional Issues. These are new roles, which require new certificates of competency, for which there are no current qualifications. It will take time to set up the qualifications and time to gain these. The transition period of 12 months will not be	Either extend the transition period for these roles, or give the Chief Inspector discretionary powers to approve individual company solutions to issues raised by the time to train. Approval to be granted if the mine has systems and processes in place that demonstrates adequate training will be completed.



Chapter	Page	Reference	Issue	Solution
			The competency is referred to as a certificate of competency as a mine mechanical/electrical engineer (vol 2 p 122) and a national diploma in extractive industries mining electrical/mechanical engineering (vol 1, p39). These terms suggest more than a trades certificate. There is a lack of clarity as to what level of competency is required. This may be a reflection of the difficulty of a "one size fits all" approach. Whether or not an electrical or mechanical engineering manager is required and the level of competency required for each operation is a function of complexity and risk. A risk assessment should be used to determine the correct mix of roles and competencies.	Require that the engineering manager roles and competencies required for each operation be determined through a risk assessment process.
Vol 1, 03	39	Para 14- 15	Opencast supervisor. Para 15 states this will be aligned with the Queensland opencut examiner certificate which is closely aligned to the current NZ A grade quarry/opencast certificate. The latter is to be retained as the mine manager competency for opencasts. This is an unnecessary additional certificate. As the NZ B grade certificate is to be retained, why not use this as the supervisor competency? Alternatively, require an A grade certificate on each shift worked. As well, it is not clear as to whether or not the opencast/quarry manager can perform both roles on the day shift. Tunnel Supervisor The tunnelling sector agrees that existing competencies should be used, rather than creating a new supervisor qualification.	Amend the Supervisor competency to A or B grade certificate. Clarify the ability of the Manager to perform the Supervisor role. Ensure all new positions allow for temporary appointment of competent persons in acting roles. Clarify the requirement where an operation may need to work a double shift for a short period without having the certified Supervisor on shift.



Chapter	Page	Reference	Issue	Solution
Vol 1, 03	40	Para 18	<u>Explosives in small opencasts, quarries, tunnels</u> . Calls for new competency in use of explosives.	Clarification and simplification required.
			Current A and B grade quarry/opencast certificates can be "unrestricted" (can use explosives) or "restricted" (cannot use explosives), therefore, there would not appear to be a need for any change here. Now there is a requirement for an Approved Handler certificate to allow the use of explosives, so the "unrestricted" tag probably has no use any more.	
			A further issue is the use of the word "small" referring to opencast mines, quarries and tunnels. The term "small" is not defined but it is assumed that it refers to operations where currently a B grade certificate is acceptable, being not more than 4 people employed in the case of a quarry/opencast or not more than 2 in the case of a quarry.	
			Given the requirement for an Approved Handler Certificate under the HSNO Act, the new requirement for training may be redundant.	
			The extra competencies for Underground Coal Mine managers should have training in Risk Assessment added to it, as detailed in Vol, page 108	
Vol 1, 03	41	Para 28	<u>Life time certificates</u> . The requirements to replace these are not clear. Industry strongly supports recognition of the existing certificate, and the requirement to sit only the additional units coupled with a verbal examination and <u>not</u> completing examinations for the remaining unit standards units.	Amend to clarify as suggested



Chapter	Page	Reference	Issue	Solution
Vol 1, 03	43	Para 36	Membership of the Board of Examiners. The Board has 3 primary roles: advice on competency requirements, assessment of applicants and granting certificates.	Replace one of the academics with a position for an experienced NZ mining engineer with significant operational experience.
			Arguably the most important function is assessing applicants and the Board makeup should reflect this. The key requirement here is relevant operational experience. The Board composition is: Regulator 2, holders of certificates 3, academics 2, and Mito CEO 1. The balance is skewed away from operationally-skilled members.	Delete the MITO position.
			There is no need for the MITO CEO to hold a Board position since the Board can consult with this person at any time on the makeup of the qualifications. Reserving the place distorts the balance between training and operational skills on the Board.	
Vol 1, 04	51		Contractors need the ability to audit the mine's safety management when they come on site to ensure the safety of their employees under the mine's safety management system	Cover explicitly in the legislation
Vol 1, 04	56	Para 30	<u>Industry health and safety representatives</u> . These are proposed to cover all mining operations and it is proposed that their qualifications will include a deputy certificate.	Ring fence the role to underground coal mines only
			Given this, it is anticipated that the role will be filled with a person with underground coal experience. The coverage includes major opencast mines and a deputy certificate, suggesting the	



Chapter	Page	Reference	Issue	Solution
			role is not envisaged for opencast or tunnel operations.	
Vol 1, 05	66		While there is a proposed requirement to integrate mine emergency management plans with CIMS, those who will fill the various roles has not been defined. Industry strongly believes that the incident manager role must be filled by the Mine Manager since this person has the most knowledge of the mine and its environment. The role requires specific technical and mine knowledge not held by outsiders such as the NZ Police.	Add this requirement to the proposal.
Vol 1, 05	66	Para 14	Emergency equipment and facilities for underground mines. The requirement here is for all underground mines – coal and metalliferous. The requirement for inertisation and sealing is unnecessary for a metalliferous mine. For some mines, some of the mandatory requirements may not be required. Equally, some operations may require additional controls by way of different equipment. It would be sensible to require a risk assessment to determine what is appropriate.	Ring fence inertisation and sealing to underground coal mines only. Require a risk assessment process to determine which of the suggested equipment is required. Detail what requirements are specifically for each type of underground operation, coal, metalliferous, and tunnels. Specifically note there would not normally be two egresses from a tunnel, nor seals to inertise the tunnel. The reference to access from shafts also needs to be reviewed as most micro tunnels are driven out of shafts.
Vol 1, 05	69	Para 25	Mines Rescue coverage. Extended to cover underground metalliferous mines and large/long tunnels. Criteria will be the maximum duration of Fire Brigade equipment.	The Industry is not able to submit on this as the detail is not yet available. The two current underground metal mines (Newmont Waihi, and Frasers) have their own first response teams along with significant backup.



Chapter	Page	Reference	Issue	Solution
			Levy yet to be set. The issue here is with capability currently at OceanaGold Macraes, and Newmont Waihi operations.	Tunnels have different processes for emergency management and full risk reviews need to be assessed at each site to set what first response capabilities are required and what Mines Rescue support is required.
Vol 1, 06	76		Transitional arrangements. New mining operations subject to the regime on promulgation. This may catch a few projects currently in the planning stages for startup close to promulgation date. Bathurst Resources is one such operation. These operations will need a longer transition period. Until we see how/when MITO is going to respond to training for the new roles we will not know if the transitional arrangements are sufficient. Of concern is the Ventilation Officer role, which may take some time to put people through. There are similar concerns about risk assessment training due to trainer capacity concerns. It is proposed to do away with life-time certificates but it is not clear how the certificate is to be replaced with a time-limited certificate within 3 years. Holders of the life-time certificates should not have to re-sit examinations but should be processed through the time-limited certificate renewal process.	This could be done through the Chief Inspector discretionary clause currently included but this is subject to the regulations which we have not seen yet. Training capacity concerns need to be addressed but again could deal with through Chief Inspector discretionary clause.
Vol 2, 02	18		<u>Inundation and inrush PHMP.</u> Geohydrologist should be included in the list of qualified people required to interpret information.	Add geohydrologist.



Chapter	Page	Reference	Issue	Solution
Vol 2, 02	20	Item 6	There should also be a maximum de-acceleration rate set.	Add this.
Vol 2, 02	24	3C2	There needs to be an overwind stop as well as a jack catcher. The ropes are designed to fail before the head frame so need to catch the kibble and cut the rope in the extreme situation.	Add this.
Vol 2, 02	31-32		<u>Fresh air.</u> Outcome standards do not specifically address diesel particulates.	Industry needs to make sure the science and technology is available to manage this issue before setting standards that cannot be met.
				Guideline material needs to be developed.
Vol 2, 02	33		<u>Fire and Explosion PHMP</u> . Should be required to address the coal dust, and any other dust explosion risk in surface plants	Add this.
Vol 2, 02	34		The document should be specific in that dust sampling is for underground coal mines.	 See general solution to this issue—split legislation into: All mines Opencast mines Underground metal mines Underground coal mines, And accept the fact that this will create duplication.
Vol 2, 02	46		Sponcom PHMP. Currently limited to underground coal mines. Should be extended to cover opencast coal mines mining old underground workings.	Add this.



Chapter	Page	Reference	Issue	Solution
Vol 2, 02	50		Explosives PHMP. Limited to underground mining operations but the hazard is present in may opencasts	Amend to require this where the hazard is present.
Vol 2, 02	57-58		Mechanical PCP. There is a generic issue here with the structure of this PCP, which applies to all mines. Some issues are relevant to all mines, some to underground mines, and some to underground coal mines. The PCP needs to make it clear which sections apply to which mines. A better approach is to divide the regulations up into sections specific to each sector. For example, fitting of automatic fire suppression on underground diesels. Issue for metalliferous mines. Item 10 (iii) also covers the same issue. Fitting of heat detection and trip sensors on safety-critical plant covers all mines. This is unnecessary in opencast mines.	See general solution to this issue, as above – split legislation into: • All mines • Opencast mines • Underground metal mines • Underground coal mines, Even though this generates duplication.
Vol 2, 02	58		Outcome requirements for mechanical engineering PCP, diesel engines. Should this be more specific about diesel particulates? WA guideline.	Same issue as under fresh air. Industry needs to make sure the science and technology is available to manage this issue before setting standards that cannot be met. Guideline material needs to be developed.
Vol 2, 02	58		Outcome requirements for mechanical engineering PCP, belt conveyors. Requires fire resistant and antistatic and applies to all mines. Antistatic is not required for underground metalliferous mines. Arguably, this is not required for opencast mines.	See general solution to this issue above – split legislation into: • All mines • Opencast mines • Underground metal mines



Chapter	Page	Reference	Issue	Solution
				Underground coal mines, Even though this generates duplication.
Vol 2, 02	72		Outcome requirements for ventilation PCP. Longwall place air passing stated at 4 cubic metres per sec but as 5 on page 80	Which is correct?
Vol 2, 02	73	4C2	<u>Underground fan.</u> This PCP is for all underground mines and prevents establishing the fan underground. This is appropriate for coal mines but not metal mines.	Ring fence as appropriate to underground coal mines. Tunnel ventilation and fans will need to be covered separately to allow differences to exist.
Vol 2, 02	81	4D	Add hazardous substances to the list	
Vol 2, 02	82		Worker health CP. Fatigue management is not mentioned under items to be dealt with, although could be considered covered by objectives item (9).	Address fatigue management explicitly.
Vol 2, 02	86	4E5 & 6	Access and egress for tunnels. It is not clear what is covered. Tunnels may not be able to have more than one egress from underground and if they do, this may be a shaft. The hazards need to be reviewed and managed without a second egress. Trafficable egress underground metal mines. The requirement is	Specifically exclude tunnels in 4E5 stating that they may only practicably have one egress from underground. Allow tunnels to operate from shafts, after risk and hazard assessment.
			worded simply as trafficable whereas Australian guidelines require "trafficable on foot".	Add the words "on foot" to the reference to trafficable in 4E6.
			In an emergency situation in an underground metal mine the emphasis is on safe refuge whereas in an underground coal mine	



Chapter	Page	Reference	Issue	Solution
			the emphasis is on self-rescue. The requirement for trafficable egress therefore could be interpreted to prevent decline and ladderway shaft operations and may appear to force mines to have twin driveable declines. This would most likely close the 2 current underground metal mines but that extreme outcome does not appear to be the intent of regulations.	
			If both trafficable egresses were required to be driveable, this is an onerous requirement inconsistent with the Australian approach to emergency situations in underground metal mines	
Vol 2, 03			Qualifications. Where the term "Mineral Technology degree" is used it should be followed by the words "or equivalent"	As stated.
			There is a similar issue for survey qualifications which should not preclude non-NZ gained qualifications	
Vol 2, 03	101		Codes	Review the list of ACOPs with the industry group and
			There are likely areas of fire and explosion risk that would impact on tunnels and underground metalliferous mines.	amend.
			The ACOPs listed are not enough to properly cover all aspects of each sector. Notable omissions are shafts, TBM, mechanised tunnelling, and alluvial mining. There are likely to be a number of others.	
Vol 2, 03	105		Introductory certificate. This needs to be able to be gained by modules recognising other training areas. We should not set up	NZ QA qualification level 2 is recommended.
			another new unit that is mandatory in its own right. Cross credit,	Companies need to be able to run their own induction



Chapter	Page	Reference	Issue	Solution
			and then require add on the missing elements.	training via an assessment process with MITO.
				Avoid unnecessary duplication when qualifications are set up.
Vol 2, 03	113		Mine manager for small opencast coal mine. Proposed to increase the certification requirement from B grade to A grade.	Clarification required.
			If we do this, why retain the B grade?	
Vol 2, 03	113		<u>Quarry/Opencast coal mine certificates</u> . The unit standard requirements are exactly the same so why the 2 certificates?	Revert to the term and competency certificate for "opencast manager".
Vol 2, 03	114		Manager of small quarry certificate. The proposal to retain the requirement for B grade is in conflict with the situation for a small opencast mine, which changes to an A grade requirement.	Resolve inconsistency.
			From a safety perspective, there is no difference between a small quarry and a small opencast, and the 2 certificates require the same qualifications.	



MBIE Questions from the Public Consultation document

Page	Question	Response
Includin	ng all types of mining in the new regime	
13	Do you agree with the proposed coverage of the mining industry? What changes would you suggest and why?	In general, the industry agrees with the proposed coverage but has concerns about anomalies created by attempting to differentiate between quarries and other opencast mines, leading to unintended consequences. In addition, industry has serious issues with differentiating between mining operations on the basis of the "within scope" proposals on page 11 of vol 1. Industry strongly believes that all operations should be covered by the new regime, and that MBIE should then prioritise which mines are inspected by the HHU, based on risk.
		A further issue with the proposed coverage is the structure of the proposal. This has led to some inappropriate requirements being placed over all mines, or all underground mines, in which the risks in some sectors do not warrant the new requirements on all sectors. Industry is firmly of the view that the legislation should be divided into five sections:
		1. Affecting all mines
		2. Underground Coal mines
		3. Underground mines other than coal
		4. Tunnels
		5. Opencast mines.
		While this will lead to some duplication it will force the legislators to focus on what is genuinely required for each section, and, just as importantly, make it very clear what the regulations are for each specific sector.
	In particular, do you agree with the proposed features for tunnels and quarries that would be covered by the new regulatory framework? What	The industry does not agree with the proposed features for quarries and tunnels because they create anomalies based on arbitrary definitions rather than risk. All mining operations



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	changes would you suggest and why?	should be treated on the same basis when drawing boundaries for within scope.
A new i	regulatory approach, with stronger hazard and r	isk management
27	Do you support the proposals to require principal hazard management plans and principal control plans?	Yes, but the approach to what is required should be based on a risk assessment, which would then define which PHMPs and which PCPs are required, and the scope of the PCPs. MinEx also understands that some companies have developed a more holistic approach to hazard management, and the proposed legislation should not preclude such an approach. This is, in effect, an argument to ensure minimum standards are set through regulation while the detail is set via codes or guidelines.
	Are the requirements for the preparation of principal hazard management plans and principal control plans clear enough to enable mines operators to prepare these plans? What changes would you suggest?	The requirements are generally clear enough, however, in some areas clarification is required to clearly ring fence underground coal issues from underground metalliferous issues where the risks indicate that it is inappropriate to require the 2 types of operations to adhere to the same requirements. The requirements and level of detail for and within PHMPs and PCPs should be determined by the operator followed by a risk assessment. Additionally, and to support the concept of the detail being risk based, it would be more effective and make changes easier to include the detailed requirements in a code rather than in the legislation. Given industry concerns about the detail, this would give more time and allow more industry involvement in the preparation of the code.
	Have we focused on the right hazards? What changes would you make to the list of principal hazards?	The focus is on the correct hazards.
	Have we focused on the right controls to be subject to the principal control plans?	Generally yes, but we see benefits in adding a geotechnical control plan and an isolation control plan. Additionally, in an opencast mine the traffic management plan in some operations will be a



Page	Question	Response
		PCP rather than a PHMP by applying the test for a principal hazard.
	Do you agree with the proposed strengthened minimum standards (set out in technical appendices 2 and 3) What changes would you suggest?	The Industry supports the new powers of the inspectors but has serious concerns about the adequacy of the level of, and competencies of, these resources. That was a key issue addressed by the Royal Commission and has not had much attention in the public consultation document.
		A second area of concern is the lack of any process to enable a mine to place a stay on a notice issued by the inspectorate. There needs to be a quick way to resolve differences. This will be particularly important with the current levels of expertise in the inspectorate and proposed industrial safety inspectors being limited to mining, and the significant changes in technology for civil tunnelling equipment and methodologies that design out hazards and limit risk.
	Do you agree with the proposed processes for managing principal hazards (set out in technical	In general yes, but with the following provisos:
	appendices 2 and 3). What changes would you suggest?	Some requirements are valid for underground coal mines but have been extended to underground metal and opencast operations, and these anomalies need to be corrected as suggested above
		There is too much detail in the material, which would be better placed in codes rather than in legislation
	Do you agree with the new enforcement powers for mines inspectors?	Yes, but there is a need for a process to allow an Inspector's notice to be challenged.
	Do you agree with the proposed transitional arrangements? Are there any transitional issues that we have missed?	In general terms, we agree with the transitional arrangements, however, the creation of new roles and qualifications will mean that there is insufficient time to both create and gain the qualifications within the specified transition period. The Senior Site Executive, Ventilation Officer, and Engineering Manager roles are of particular concern.



Page	Question	Response		
Safety o	Safety critical roles for mining operations			
31	Do you agree with the proposed functions and duties of the new and expanded safety critical roles? Why, why not? What would you change?	There is general agreement with the functions and duties of the new roles. Senior site executive - the requirement for a manager competency certificate is unnecessary and will create problems with the small pool of qualified people available. A better approach would be to adopt the Queensland approach to specifying what the SSE can and cannot do with respect to directing the Mine Manager. Supervisor – while this role may be justified in terms of ensuring appropriately qualified supervision for 24-hour operation, it would be more appropriate to use the existing New Zealand A or B grade certificates for this role rather than a new certificate based on the Queensland opencut examiner certificate. Safety critical roles - There is no clarity on the basis for determining how many roles an individual may hold, nor is there clarity around how many mines an SSE will be permitted to manage. The term "geographically adjacent" is used here but this is inappropriate. It is not a question of how close the SSE is to the mines that determines how many operations can be managed but the complexity (risk profile) of the operation or operations. The safety critical role issues above should be determined by the operator via a risk		
		assessment.		
	Is the role of the SSE relative to that of the mine manager clear and, if not, how could we clarify this?	If the requirement for the SSE to hold a mine manager certificate is dropped and the Queensland approach of specifying the boundaries of the roles with respect to the mine manager is adopted, then this would also provide clarification on the difference between the roles. There is also much information on the role in the Queensland regulations which could be usefully adopted here. This could be in the form of a code or regulation.		
	Should an SSE be able to be responsible for more than 1 mine site?	Yes, and this is provided for, but is qualified by the mines being "geographically adjacent" which is a rather vague term. Given the difference between the role of mine manager and SSE, there would be little justification in requiring 2 people in the 2 roles but at some stage the number of mine managers reporting to a single SSE would become onerous and prevent		



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		the SSE from discharging the role, as intended.
		This issue is a generic one that applies to many industries. The mining industry issues being addressed by the SSE role do not justify limitations on the number of operations for which an SSE can be responsible for beyond what other industries would apply.
		It is not geographic location that determines how many operations the SSE can properly supervise but the complexity of those operations. Geography only determines how long it takes to get from one site to another, which is not related to risk.
		See the response to Q31.
	Do you agree with the proposal that, in certain circumstances, a person can hold more than one safety critical role? In particular, do you think it is appropriate that a mine manager also hold the role of SSE?	Yes, to both questions, and this issue needs to be determined via a risk assessment. See the response to Q31.
Establish	hing a mining sector advisory group	
32	Do you support the establishment of a mining sector advisory group?	Yes.
	Do you agree with the proposed functions of the group? What changes do you suggest?	The monitoring of industry health and safety trends is currently carried out by MinEx and there is little point in duplication.
		The representation of the advisory group needs to reflect all sectors including civil tunnels as well as the other entities noted in Volume 1 page 32.
	Do you agree with the proposed membership of the group? What changes do you suggest?	Yes, and therefore no changes suggested.



Page	Question	Response			
Compet	Competencies for safety critical roles in the mining industry				
41	Do you agree with the proposed competencies for safety critical roles in the mining industry? If	We agree with most of the proposals.			
	not, why not? What changes would you suggest?	<u>SSE</u> – remove the need for manager certificate, and provide a regulation or code on the responsibilities of the role.			
		<u>Supervisor</u> – replace the proposed new certificate with the existing NZ certificate (A or B grade opencast certificate)			
		<u>Engineering Managers</u> – it is unclear what competency level is intended here. Regardless, it would seem that risk should determine this. Some operations would be adequately served by a trades certificate while some might require a degree level qualification and others in between.			
	What level of qualification should the SSE have and should this differ depending on the type of operation?	We do not agree that manager's certificates of competency should be required. This role is about ensuring the appropriate resources (people, finance, equipment, systems) are available to the mine manager to enable that person to discharge their duties. Consequently the competencies required relate to management, leadership and operational experience and these matters are not specific to Mine Manager competency certificate requirements.			
	Should we introduce "human factors" into the competency requirements for safety critical and general management/supervisory roles in mining operations? If so, for which roles should this requirement be introduced?	Yes, and for all levels of management. We note that this approach was taken up by similar high-hazard industries such as aviation, petrochemicals, and medicine some years ago in response to similar issues as those faced at the Pike River Coal disaster.			
	What should be the minimum training or competency requirement for new mine workers?	A level 2 NZQA qualification is all that is required.			
	How do you think the competence of existing workers should be assessed to ensure that they	Recognition of prior learning.			



Page	Question	Response
	meet the new minimum requirements? What transitional arrangements should apply?	Transition period of 24 months, providing the employer has documented systems and processes in place to demonstrate training/competency achievements.
	We currently have separate certificates of competency for underground and opencast mines, tunnels and quarries, although some of these have the same or similar unit standards. Do you favour consolidating the certificates of competency where practical?	Yes, but the only practical consolidation is the quarry certificate and the opencast certificate. Both require the same unit standards and, therefore, are the same qualification.
	Are the transitional phase-in provisions for the new competencies reasonable? Are there any transitional issues that we have missed?	The main problem with transitional arrangements relating to new competencies is that the qualifications are new and time will be required to gain these qualifications. In many cases, the transitional period is insufficient for new qualifications. A further issue is the need to set up the Board of Examiners prior to establishing any new qualifications, which could seriously delay the introduction of the new qualifications.
A board	l of examiners providing greater regulatory over	sight
44	Do you agree with the proposed functions for a board of examiners? Is there anything you would suggest that we do differently?	The board has 3 primary roles: advice on competency requirements, assessment of applicants, and granting certificates.
		Arguably the most important function is assessing applicants and the board makeup should reflect this. The key requirement here is relevant operational experience. The board composition is: Regulator 2, holders of certificates 3, academics 2 and Mito CEO 1. Consequently, the balance is skewed away from operationally-skilled members.
		The MITO position is not required and 1 of the academic roles should be dropped in favour of adding an experienced mining engineer with an operations background.
	Should we look towards a joint New Zealand/Australia accreditation process, or have an independent New Zealand board of examiners that maintains close links with Australian	Separate processes with close links.



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	counterparts?		
	Should the industry fund the board of examiners through the payment of a levy? If yes, should the levy be based on output or the size of the workforce? If not, how should the board be funded?	The industry view is this is a Regulator responsibility but with user-pays applying to the examinations for, and the issuing of certificates.	
Increased worker participation in health and safety in mining operations			
59	Do you support the proposed approach for applying worker participation to contractors? Do any difficulties arise; for example, from the use of the "mine worker" concept?	Yes, and no issues with use of the mine worker concept.	
	Do you agree that we should replace the current approach for determining the functions of a site health and safety representative, which is for employers, employees and unions to negotiate these, and instead specify a list of functions? Should the parties be able to negotiate functions and powers in addition to those specified in the HSE Act?	Specify functions with ability to negotiate additions.	
	Do you support the proposed mix of functions, powers and complementary provisions for site and industry wide health and safety representatives? What do you suggest we do differently?	There is no broad support for extending this role beyond underground coal mines. Industry will submit in detail on the Bill currently before the Transport and Industrial Relations Select Committee.	
	Are the industry wide functions from the Queensland legislation appropriate? What other	The Queensland legislation approach is appropriate.	



Page	Question	Response		
	industry wide functions could the proposed industry health and safety representatives undertake?			
	Do we need to provide immunity from liability for site and industry health and safety representatives?	Industry will submit on this issue on the Bill.		
	What level of training and qualifications do you think should be required for site health and safety representatives?	This is a generic issue across all industries.		
		H&S representatives should be trained to unit standard 20198. They also need to have recognised experience in that sector of the industry as a minimum.		
	What level of training and qualifications do you think should be required for industry health and safety representatives? Is the deputy's certificate and appropriate level of qualification for an industry health and safety representatives for all types of mining operations?	The deputy certificate is appropriate for underground coal operations but to extend that cover to underground metalliferous mines, opencast, and tunnel operations is not appropriate or necessary. In addition to the base levels of competency, there would also need to be training in risk assessment and management, occupational health and safety, and auditing skills.		
	What issues should be covered in a code of practice for worker participation? What sort of guidance on the documentation of worker participation systems would be useful?	As above, industry will submit in detail on the Bill. We suggest engagement with officials as well to discuss issues to do with codes for worker participation. We have not had time to address these questions more fully, at this stage.		
	participation systems would be useful.			
Emergency preparedness, emergency management and Mines Rescue Service				
71	Do you agree with the proposed emergency management processes for mining operations? What would you change?	In general, industry agrees with the processes.		



Page	Question	Response		
	Do you agree with the proposed minimum standards for the emergency equipment and facilities that must be present at underground mines? What would you change?	Yes, except for inertisation and sealing requirements for underground metal mines and tunnels. This requirement should be restricted to underground coal mines, and be based on a risk assessment. The other requirements should also be determined via a risk assessment process.		
	Do you agree with the proposed requirements for emergency management plans? What changes do you suggest?	Yes.		
	Do you agree with the proposed changes to the the MRT Act concerning functions, scope and levies of the MRS? What would you change?	There is concern about extending coverage of the MRS to all mines given that there are only 2 operational rescue stations, and that the 2 major underground metal mines are too remote from these stations for anything but backup in the event of a prolonged emergency. The same consideration applies to tunnels.		
	Do you have any suggestions on how the levy that funds the MRS should be structured?	Needs to be risk based, and determined from the level of service able to be supplied. Effectively, the levy will be an insurance premium to reflect the service provided in the event that the mines serviced require backup in the event of an extended emergency.		
Transitional arrangements				
77	Are the transitional phase-in provisions for the new regulatory approach reasonable?	These are a repeat of the page 41 competency questions.		
	Are there any transitional issues we have missed?			