



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
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IMPLEMENTATION REVIEW OF THE *HEALTH AND SAFETY AT WORK (MINING OPERATIONS AND QUARRYING OPERATIONS) REGULATIONS 2016*

**DISCUSSION DOCUMENT FOR CONSULTATION WITH INDUSTRY, WORKERS
AND REPRESENTATIVE ORGANISATIONS IN THE MINING, TUNNELLING AND
QUARRYING SECTORS**

30 JUNE 2018

Introduction

We want your feedback on proposals and options about how the Mining Regulations are working

The Ministry of Business, Innovation and Employment (MBIE) is doing an implementation review of the Mining Regulations to fulfil a Government commitment given to industry 2013. This commitment was given because the regulations were developed in such a short period of time, and seeks to test how they are working in operation and to consider further regulatory coverage for quarries. The review is not re-opening all the policy work done in 2013 by the Royal Commission on the Pike River Coal Mine Tragedy and the regulatory implementation project.

MinEx and the Aggregate and Quarry Association (AQA) raised a number of operational issues in 2017 which MBIE has been analysing in consultation with WorkSafe and WorkSafe's Mining Board of Examiners (BoE). The consultation document sets out MBIE's options and proposals in response to the issues raised by MinEx and AQA for testing with the extractives sector in a targeted consultation with all interested stakeholders in the mining, construction tunnelling, and quarrying sectors.

The document is detailed, focusing on the issues MinEx and AQA raised, with some further issues that have emerged in response. For context, MBIE has summarised the industry views and the policy intent. It has also summarised its understanding of the industry perspectives and WorkSafe's provisional response. The document also has appendices with some policy background and a glossary of abbreviations and acronyms.

How to have your say

We want your feedback on the options and proposals so the government can decide what changes are needed to the Mining Regulations. We need your feedback by no later than: **Close of business, Friday, 17 August 2018.**

You are welcome to make submissions in response to some or all of the issues. You are also welcome to raise any other issues you think we may have missed about how the Mining Regulations are working, or about the coverage of quarries. You can also provide comments on benefits and consequences/costs of a policy proposal.

Any person or organisation in or with an interest in the mining, tunnelling and quarrying sector can make a submission. Your submissions may incorporate any relevant material. A submission can range from a short letter on one of the topic areas or options to a substantial response covering multiple topics and options.

MBIE will share new ideas raised during the consultation with other stakeholders so that the consultation process allows everyone to consider all the issues in the review. If necessary, more time will be allowed for consultation.

Please include your name, organisation (if relevant) and contact details. We appreciate receiving an electronic copy of posted submissions, preferably in Microsoft Word or searchable PDF format.

Please provide your feedback to MBIE via email at HSWMining@mbie.govt.nz

Your submission may be made public

Quarries, alluvial mining and ironsand mining

1. Greater regulatory or code of practice coverage

In the Mining Regulations, quarries are only covered by requirements for managers and their Certificates of Competence (CoCs). In 2013 the government excluded quarries from the regulatory hazard management processes because the majority of quarries in New Zealand were smaller operations, meaning that overall the sector had less risk of catastrophic events and it would have been disproportionate to impose the whole mining regime. The government committed to review this decision once the regulations were operating and after quarry guidance had been issued by WorkSafe.

| Issue | 2013 Policy intent | MinEx/AQA view | WorkSafe provisional feedback |
|--|---|--|--|
| <p>Quarries – whether to have greater hazard management regulation?</p> <ul style="list-style-type: none"> Government commitment in 2013 | <ul style="list-style-type: none"> The rationale for excluding quarries was to not dilute the focus on the catastrophic risks of mining. Quarries were considered to have less catastrophic risk overall. Initial options to split the sector and cover higher risk quarries were abandoned in response to strong feedback from the sector that this would undermine the industry. The exclusion and reasons for the decision were made public in 2013 (see Appendix1) The surface mine/quarry boundary can be arbitrary, and some quarries have similar hazards. One difference is that mines are less stable – operators can't choose the terrain where minerals are found, it is a by-product; quarries are more stable as they mine the rock itself | <ul style="list-style-type: none"> The quarry sector, represented by MinEx and AQA, seeks greater formality for improving safety in quarries – by Approved Code of Practice (ACOP) or regulations separate from existing Mining Regulations (MRs) Elements – <ul style="list-style-type: none"> require health and safety management system (HSMS), but not principal hazard management encourage voluntary principal hazard management as best practice Site Senior Executive (SSE) competencies included in manager CoC no need for specialist roles for principal control plan management no need for quarry plans submitted to regulator emergency response plans should apply to quarries quarries would notify particular events to WorkSafe quarries would provide quarterly reports as per mines Reasons – <ul style="list-style-type: none"> sector has increased cohesion since 2013, but there are still safety issues and the sector needs to improve quarries wish to be part of a wider extractives sector alongside mining and retain specialist inspectors regulation or ACOP would maintain momentum and ensure safety Levy – the sector is open to an industry levy to fund specialist inspection | <ul style="list-style-type: none"> Sector profile: there are approx. 1,200 quarries, mostly small, and 200-500 larger. In recent years there have been six fatalities associated with the quarrying and alluvial mining. WorkSafe generally wants to support the quarry sector by keeping up momentum as quarries gain greater cohesion as a group, and supporting their place in the extractives industry. MBIE understands that WorkSafe prefers greater regulation to a code of practice, but does not see a need for all aspects of the principal hazard management framework, and that it supports having specialist inspectors. |

CONSULTATION PROPOSALS AND OPTIONS – QUARRY COVERAGE

MBIE supports greater formality for quarries, which could be by a code of practice or regulation – MBIE seeks your views on which is best, and why.

- MBIE sees some advantages in regulations so that quarries are more aligned with mining and tunnelling, provided this does not dilute the regulations' focus on principal hazard management. MBIE seeks your views on a regulatory proposal (if regulations are chosen) that would:
 - Retain the qualified manager (potentially a qualified supervisor, see below), and include SSE competencies
 - Add a new section to the regulations requiring quarry managers to develop an HSMS (inclusive of risk assessment and review), plus some further requirements for key quarry hazard controls, adapted from the UK quarry regulations (depending on the scale of the quarry operation), ie, ground and strata control, traffic and engineering management, and emergency response
 - Include notification and reporting requirements.

2. Alluvial mining and ironsand – greater regulatory or code of practice coverage

The Health and Safety at Work Act 2015 (HSW Act) defines alluvial mining as extraction of gold or ironsand from sand or gravel, and, like quarrying, the Mining Regulations have limited coverage (only managers and competency). The same question arises for alluvial mining as for quarries, about whether to expand regulatory coverage.

| Issues | 2013 Policy intent | MinEx view | WorkSafe provisional feedback |
|---|--|--|---|
| Ironsand mining <ul style="list-style-type: none"> WorkSafe proposal (HSW Act definition of mining & reg.3) | <ul style="list-style-type: none"> Ironsand mining is included in the HSW Act definition of alluvial mining (see Appendix 2 definitions) Alluvial mining is treated in the same ways as quarrying in the MR. | <ul style="list-style-type: none"> NA | <ul style="list-style-type: none"> WorkSafe has observed that ironsand mining can involve operations that are larger and more complex than some underground mining, although alluvial gold activities are generally smaller and pose a lower risk. This suggests that more requirements for ironsand mining (not alluvial gold mining) should be included in the regulations. The requirements could be similar to the elements for quarries detailed above (see issue 1), tailored for ironsand mining. |

CONSULTATION PROPOSALS AND OPTIONS – ALLUVIAL MINING AND IRONSAND

- MBIE proposes consulting on including ironsand mining in the new part for quarries with the HSMS requirement, as well as including alluvial mining and ironsand mining in notification and reporting requirements.

3. Quarry and alluvial manager certificates of competence and supervision

MinEx/AQA, WorkSafe and BoE have raised problems with the B-grade quarry (and alluvial) manager CoC, as there is currently no differentiation between A and B examinations. MBIE wishes to test if there is a sensible differentiation, leaving room for site-specific CoCs, and whether there is a place for a supervisor role.

| Issues | 2013 Policy intent | MinEx view | WorkSafe and BoE provisional feedback |
|---|---|---|---|
| Quarry and alluvial manager CoCs <ul style="list-style-type: none"> WorkSafe/ BoE priority issue MinEx/AQA priority issue, quarries, alluvial mines (Reg.21, 22) | <ul style="list-style-type: none"> There is intended to be a differentiation between A and B grade manager CoCs, as most quarries are lower risk – the same policy intent as reg.8 of the former Health and Safety in Employment (Mining Administration) Regulations In 2013, there was a typo in reg.21(2), which was corrected in 2016 – it should have said “no” explosives. | <ul style="list-style-type: none"> MinEx considers B-grade CoC is not needed as it's the same as the A-grade CoC. Supervisor CoC proposed instead. | <ul style="list-style-type: none"> Currently the examination for B-grade CoCs requires the same standard as for A-grade CoCs because large quarries, even without explosives, have major hazards due to scale, eg, multiple vehicles, high faces, machinery. The regulations use explosives as the proxy for high risk, but this is obsolete because of the change in where risks now lie, and because explosives are well controlled under hazardous substances controls. WorkSafe and BoE suggest that a more natural threshold for a B-grade CoC would be 4 or fewer workers (even if explosives are used), because this allows for a quarry with a single crusher unit (~70% of quarries). The BoE has noted that alluvial mining operations have unique characteristics that are different from quarries and mines. |
| Need for quarry / alluvial supervisors <ul style="list-style-type: none"> MinEx, WorkSafe, BoE Priority issue (Reg.31) | <ul style="list-style-type: none"> Coverage of quarries and alluvial mines is limited to manager CoCs, there is no current provision for qualified supervisors | <ul style="list-style-type: none"> Industry supports having supervisors for different sites under the control of a manager | <ul style="list-style-type: none"> WorkSafe BoE suggests that a B-grade manager could supervise satellite quarry operations that are under the overall control of an A-grade CoC holder. This would limit satellite sites to not more than 4 workers. |

CONSULTATION PROPOSALS AND OPTIONS – QUARRY B-GRADE MANAGER AND SUPERVISOR COCS

- MBIE supports the need for both A and B-grade CoCs, with a real differentiation in the competency needed, provided there is a true distinction between higher and lower risk quarries. MBIE seeks feedback on whether size and scale should replace explosives as the test, and that the natural cut-off should be set at a maximum of 4 workers for a B-grade CoC.
- MBIE considers that a B-grade CoC would also be appropriate for supervision of a satellite quarry operation no larger than 4 workers when under the control of an off-site A-grade manager. This solution, rather than a new supervisor role, appears more consistent with the policy intent. MBIE seeks feedback on whether this is a better option than the supervisor concept, or, if there are any different situations where a supervisor role would add value. MBIE also seeks feedback on what competency level industry would expect a supervisor to hold compared to the lower level B-grade CoC at the current unit standard level.
- MBIE seeks feedback on whether to have separate alluvial CoCs and competencies.

4. Safety in dormant quarries

WorkSafe is concerned that dormant quarry activities currently pose safety risks to workers and need a person to supervise the quarry.

| Issues | 2013 Policy intent | MinEx view | WorkSafe provisional feedback |
|---|---|--|---|
| Dormant quarries <ul style="list-style-type: none"> • WorkSafe priority issue | <ul style="list-style-type: none"> • This issue was not considered in 2013 | <ul style="list-style-type: none"> • Industry has not yet considered the dormant quarries issue | <ul style="list-style-type: none"> • WorkSafe is concerned that 'dormant quarries' can present risks to safety due to activities happening at these quarries (i.e. truck drivers loading material onto their trucks and driving away) and potential ground instability. It suggests consideration of supervision requirements. |

CONSULTATION PROPOSALS AND OPTIONS – DORMANT QUARRIES

- MBIE notes that the UK quarry regulations incorporate the concept of ongoing periodic oversight of dormant quarries, and seeks feedback on how best to ensure oversight.

5. Quarry boundaries

MinEx considers the definition of quarry is too wide and lets in earthworks.

| Issues | 2013 Policy intent | MinEx view | WorkSafe provisional feedback |
|--|---|--|---|
| <p>Boundaries of quarry definition</p> <ul style="list-style-type: none"> MinEx priority issue <p>(HSW Act definition of quarry, Sch3(3))</p> | <ul style="list-style-type: none"> It is very clear that there are boundaries to quarrying – with construction-type earthworks, secondary processing, and trivial activity (eg, farm gravel pits used for on-farm roads) | <ul style="list-style-type: none"> MinEx is concerned the definition of quarrying operation is too wide and covers all general earthworks – it wants the focus to be on genuine quarries with relevant hazards MinEx is seeking a change to the statutory definition | <ul style="list-style-type: none"> MBIE understands that WorkSafe sees genuine room for debate about earthworks where there are lots of cut to fill, and there could be greater clarification about what is excluded. WorkSafe suggests that any material processed onsite should be included in the regulations, excluding recycling plants and topsoil. WorkSafe has advised that it does not typically undertake compliance activity on small quarries on private land. |

CONSULTATION PROPOSALS AND OPTIONS – QUARRY BOUNDARIES

- MBIE notes that there is intended to be a boundary between quarrying and construction work – construction work has its own definition in other regulations (see definitions in Appendix 2 below).
- MBIE proposes that topsoil is not caught in the definition of quarrying. It understands that quarrying is intended to cover the excavation of material and crushing/screening into usable quarry aggregate product (whether on or off the excavation site, plus storage dumps), but –
 - further crushing into other refined products crosses the boundary into manufacturing
 - construction work that involves excavation and filling as part of that work is “construction” rather than quarrying, unless it is construction of a tunnel (other than a trench and cover tunnel) – but, if there is a separate quarry business producing aggregate for the construction, this would be a quarry.
- The UK quarry regulations take a similar approach, with a much more detailed definition.
- This review does not have the scope to make changes to the principal Act (although clarification could, if necessary, be placed on a list of issues to be considered in future when the Act is being revised). The review does allow resolution of the boundary issues by stakeholders clarifying them in discussion, provided they are within the definition, and this can be clarified in practice through guidance and WorkSafe being clear about its practice. MBIE seeks feedback on clarification based on its understanding in the second bullet above. MBIE will be guided by legal advice about whether it is possible to provide any further clarification, in the regulations.

Various issues regarding making the regulations more adaptable to different types of mining

6. Mechanical and electrical control plans – whether they are needed for all mines and tunnelling operations

Mechanical and electrical principal control plans (PCPs) are provided in the regulations to cover coordination and oversight of principal mechanical or electrical principal hazards and are being required of all mines and tunnelling operations. There are some aligned obligations in the Electricity (Safety) Regulations 2010 (ESRs). MinEx considers these PCPs, and their associated need for qualified mechanical or electrical superintendents, are too onerous and compliance costly for some surface mines that do not pose sufficient risk to warrant the level of control.

| Issues | 2013 Policy intent | MinEx view | WorkSafe provisional feedback |
|---|---|--|---|
| <p>Mechanical & electrical PCPs for surface mines</p> <ul style="list-style-type: none"> • Priority issue raised by MinEx <p>(Regs.96-98, 100-101)</p> | <ul style="list-style-type: none"> • Appendix 1 summarises the overarching policy intent of the MR principal hazard regime and where PCPs fit in, ie: <ul style="list-style-type: none"> ○ for situations beyond the ability to manage a single principal hazard with a principal hazard management plan (PHMP) ○ they coordinate related types of hazards and controls in a single plan • Mechanical and electrical PCPs require oversight by a specialist role of mechanical or electrical superintendent • Mechanical/electrical PCPs could be read as needed wherever there is machinery or electrical equipment, ie, in all mines, but the policy intent was for discretionary application, ie, to underground mines, and to other mines with scale or risk of fire or explosion | <ul style="list-style-type: none"> • Mechanical and electrical PCPs are routinely being required for surface mines where the operation has any mechanical or electrical equipment. But, the regulations are very prescriptive and more applicable to underground coal than surface mining • MinEx seeks clarification of the regulations to limit usage to principal hazards present of a mechanical or electrical type, or clarifying that the plans only need to address mechanical and electrical controls, not “all things” electrical | <ul style="list-style-type: none"> • WorkSafe notes that mechanical and electrical PCPs are needed if a principal hazard is present. • It has observed a significant improvement in mechanical and electrical safety standards at surface operations since PCP requirements were introduced. • WorkSafe suggests that allowing endorsements for specific types of operation could make PCPs less onerous but still effective. • WorkSafe notes the need to ensure that ESRs align with the approach for PCPs. |

CONSULTATION PROPOSALS AND OPTIONS – MECHANICAL AND ELECTRICAL CONTROL PLANS

- MBIE considers this issue goes to the heart of how the health and safety management system (HSMS), risk assessment, and principal hazard management regimes were intended to be proportionate and cater for different types of mining. There will be many hazards in a mining or tunnelling operation, all covered by the HSMS (which may include some control plans), but PRINCIPAL hazard management and control (and all the process and burden that goes with this) are needed only for those hazards that could cause multiple fatalities from a single event or series of events. There needs to be a better understanding all round about when principal hazard management or control is needed, so that their use is commensurate with the obligations posed in the regulations. MBIE accepts that this is trickiest when deciding the need for mechanical and electrical PCPs, and PHMPs for ground or strata, roads and vehicle operating areas, and tips ponds and voids. It is also likely PCPs and PHMPs would still need to apply to all underground mines.
- MBIE proposes amending the definition of principal hazard to clarify that a series of recurring accidents relates to repeated exposures to health risks. It also seeks robust discussion on whether there are sensible trigger points for when mechanical or electrical PCPs, and certain PHMPs, are needed, and if so, where. MBIE also wishes to ensure that obligations related to electricity in the mining parts of the ESRs continue to sensibly align to any differentiation points, so that minimum ESR obligations are maintained and avoid ESR obligations simply requiring similar processes under the different regime. The regulations could be clarified to reflect sensible trigger points.
- MBIE is also proposing (see below) to make CoCs more flexible (eg, endorsed for different types of mining), but in relation to PCPs, MBIE seeks feedback on WorkSafe’s idea that making the superintendent CoC requirements more tailored is a better way to resolve this issue than trying to differentiate between the need for PCPs.

7. Improving flexibility for CoC requirements for specialist roles

WorkSafe, the BoE and MinEx consider that CoC requirements for certain roles could be made more proportionate to cater for different types of mining if there is more flexibility to set different competency requirements for specialist roles so that CoCs can be endorsed for different types of mining.

| Issues | 2013 Policy intent | MinEx view | WorkSafe provisional feedback |
|---|---|--|---|
| <p>Mechanical/ electrical superintendent and ventilation officer coal/ non-coal competency</p> <ul style="list-style-type: none"> • MinEx priority issue • Priority issue for WorkSafe, BoE (Regs.26-27, 29) | <ul style="list-style-type: none"> • The electrical and mechanical superintendent roles are only needed if a mechanical or electrical PCP is required, as their role is oversight of complex systems • A Royal Commission theme was greater role competency, through regulatory role requirements and WorkSafe setting competency (with ITO, and aligned to Australia) – this was enabled via regs 34, 35 | <ul style="list-style-type: none"> • Underground competency and experience is required for all mechanical and electrical superintendents, but isn't needed for surface mines. Ventilation officers need underground competency, but there should be different requirements for coal/non-coal. • New roles or simplified competencies are needed. | <ul style="list-style-type: none"> • The specialist safety critical roles appear to be generic, making no distinction between the different types of operation. This is causing a decrease in the number of people to fill these roles, which leads to the use of part time contractors, eg as mechanical superintendents. • WorkSafe and BoE suggest making the competencies capable of catering for underground / surface; coal / non-coal; or explosive / non-explosive as needed. |

CONSULTATION PROPOSALS AND OPTIONS – IMPROVING COC FLEXIBILITY

- MBIE considers that greater flexibility is within the policy intent, as, once regulatory roles were set, WorkSafe (and its BoE) were intended to have the job of setting the appropriate competency required. MBIE supports improved flexibility for CoCs, and seeks feedback on whether this will help the mining framework be more proportionate for different types of mining.
- MBIE notes that the CoC process will need to be suitably flexible in response, so that candidates are clear on the competency requirements, and the application processes are easy and non-bureaucratic (with candidates being able to easily remedy any faults in their application without need to resubmit or pay another fee).

8. Site Senior Executive (SSE) specialist competency in underground metalliferous mines

SSEs in underground operations need both an SSE CoC and a further mining or tunnelling-specific manager competency. For underground coal and metal mines, they generally need a first class mine manager CoC. Tunnelling SSEs may hold other competencies, such as engineering degrees. MinEx considers that for underground metalliferous mines, unlike underground coal mines, the SSEs do not need to hold the first class mine manager CoC.

| Issues | 2013 Policy intent | MinEx view | WorkSafe provisional feedback |
|--|--|---|--|
| <p>Whether underground metal SSEs need the mine manager CoC</p> <ul style="list-style-type: none"> MinEx/AQA issue (Reg.8(2)(b)) | <ul style="list-style-type: none"> There was a clear policy intent for SSE for both underground coal and metalliferous operations to need the relevant coal or metal manager CoC as well as the SSE CoC For tunnels, WorkSafe may specify further competencies ((8(2)(b)) This is intended to ensure the SSE understands the risks (8(2)), & SSE is overruled by a qualified mine manager in the event of disagreement if SSE doesn't have the qualification (8(4)) | <ul style="list-style-type: none"> In the metal mining sector, the current situation has led to SSE being the same person as the manager in 2 underground metal mines – this is less than ideal Specialist CoC not as necessary as there less risk than coal, so industry proposes removing the requirement | <ul style="list-style-type: none"> WorkSafe suggests that the qualified manager competency is needed for SSE role to be effective, and it is not a problem with the SSE being the same person The BoE expects applicants to understand the relevant sector to ensure the risk assessment processes are in place, used, and identify all principal hazards. This cannot be done if the SSE does not have the technical capability and skills associated with the mine activity. |

CONSULTATION PROPOSALS AND OPTIONS – SSE SPECIALIST COMPETENCY IN UNDERGROUND METALLIFEROUS MINES

- The policy intention was for the SSE of an underground metalliferous mine to fully understand the risks and hold a first class mine manager CoC, whereas it was recognised that SSEs of tunnelling operations might hold different – and superior – qualifications than an A grade tunnel manager CoC. MBIE notes WorkSafe's feedback and seeks feedback on whether any specialist competency is needed, and if so, whether there is any other competency that an SSE could hold to provide assurance that they fully understand the risks of underground metalliferous mining.

9. Introduce mine surveyor competencies for surface mines and tunnelling operations

There may be room for allowing mine surveyor competencies for surface mining and tunnelling operations.

| Issues | 2013 Policy intent | MinEx view | WorkSafe provisional feedback |
|---|--|---|---|
| <p>Mine surveyor competency</p> <ul style="list-style-type: none"> Raised by WorkSafe and tunnelling sector (Reg213(4), 28) | <ul style="list-style-type: none"> The policy intent was for plans for surface mines and tunnelling operations to be prepared by a licensed cadastral surveyor. | <ul style="list-style-type: none"> The tunnelling sector supports introducing a mine surveyor competency | <ul style="list-style-type: none"> The MR require mine plans to be signed off by a licensed cadastral surveyor with limited knowledge of a mining operation, and surface mine and tunnelling operations do not have the opportunity to gain suitable experience for sign-off as a mine surveyor. WorkSafe suggests a mine surveyor endorsement for surface and tunnelling operations be considered. |

CONSULTATION PROPOSALS AND OPTIONS – MINE SURVEYOR FOR SURFACE MINES

- MBIE seeks feedback on whether to allow for a mine surveyor competency for surface mining and tunnelling operations.

10. Supervision and relationship to production shifts

MinEx and others have asked for clarification about the need for a constant qualified supervisor (or underviewer) in some different “non-production” situations.

| Issues | 2013 Policy intent | MinEx view | WorkSafe provisional feedback |
|--|--|---|--|
| <p>Super-vision for non-production shifts</p> <ul style="list-style-type: none"> MinEx priority issue re coal exploration and definition of supervision generally (Regs.30-31) | <ul style="list-style-type: none"> Regs 30, 31 require a constant, qualified supervisor for production shifts There are questions about whether some situations are non-production, and should not need a qualified supervisor, particularly – <ul style="list-style-type: none"> coal exploration non-production shifts (eg, maintenance), and mines on care and maintenance While not defined, using the word production implies there are non-production shifts, where qualified supervision would not be prescribed. There was no intent to prescribe supervisors for non-production shifts in some scenarios. <ul style="list-style-type: none"> coal exploration waives specialist competency for SSE and mine manager (8(3), 16(2)) but retains qualified supervisor. maintenance shifts were specifically discussed with EAG during regulation development, but it is not clear if there was a position regarding care and maintenance | <ul style="list-style-type: none"> MinEx notes inconsistency re coal exploration, and proposes aligning the supervision requirement with regs 8, 16 MinEx is also concerned about unclear definition of “production shift” generally, and seeks clarification In relation to suspended mines, MinEx would support removing the requirement for qualified supervisors, but it has overarching proposal to remove qualified SSE/manager for suspended mines without principal hazards (see below) Pike River Recovery Agency finds need for constant, qualified supervisor for a suspended mine unnecessarily onerous | <ul style="list-style-type: none"> WorkSafe prefers to maintain qualified supervision. Supervision could be limited to where any principal hazard exists, eg, a supervisor would be needed in a suspended mine, or during maintenance if the work exposes workers to principal hazards. The competence of the supervisor role should relate to the work and environment. WorkSafe notes that underground mineral exploration activity can present safety risks to workers, and suggests that this issue be reconsidered in the definition of mining operation when the HSW Act is reviewed in future. |

CONSULTATION PROPOSALS AND OPTIONS – SUPERVISION AND PRODUCTION SHIFTS

Coal exploration

- MBIE does not recall if qualified supervision for coal exploration was considered during policy development, and, as identified by MinEx, it seems inconsistent with the specific treatment of exploration at SSE and manager level (SSE does not need any mining-specific CoC (reg.8(3)), and manager does not need a mining CoC (reg.16(2)). There is also confusion in the regulations, as they imply that mineral exploration is covered, when it is not covered by the definition of mining in the HSW Act. This situation needs clarification. MBIE seeks feedback on two options for amending reg.31, for pure exploration situations, or for exploration activity undertaken as part of an existing operation (where the SSE and manager would hold competencies for the existing operations) – either to:
 - clarify that qualified supervision is not required for coal exploration, or
 - provide an appropriate supervisor qualification for drilling
- Mineral exploration - MBIE proposes clarifying the regulations so that they do not suggest that mineral exploration is covered as mining. (MBIE notes WorkSafe’s request to consider mineral exploration in a review of the HSW Act).

Supervision for “non-production” shifts, and care and maintenance

- The policy understanding during regulation development was that there were maintenance (or graveyard) shifts that did not need qualified supervisors/ underviewers, and seeks further feedback to clarify this.
- MBIE supports clarification of “production” in regs.30 and 31, and seeks feedback on the idea of clarifying that qualified supervisors are not required if the work being undertaken does not involve exposure to principal hazards.

Suspended mines’ need for specialist roles

11. Suspended mines – whether they always need SSE, manager

MinEx has suggested limiting the definition of suspended mines (to exclude maintaining tailings etc) because some mines don’t need an SSE or qualified manager during these stages. The underlying policy question is whether a qualified SSE and manager are always necessary for suspended mines.

| Issues | 2013 Policy intent | MinEx view | WorkSafe provisional feedback |
|--|--|---|--|
| <p>Suspended mines – if they always need qualified SSE and manager</p> <ul style="list-style-type: none"> MinEx priority issue (Regs.3, 8, 13) | <ul style="list-style-type: none"> The policy intent was to provide for mining health and safety during the mine life-cycle, from commencement to abandonment, including during suspension (definition reg.3, see Appendix 2) Definition of mining operation (HSW Act Sch3(1), see Appendix 2) includes “maintenance of plant/buildings/tailings/waste dumps/removal of plant and buildings” | <ul style="list-style-type: none"> MinEx noted that recent rationalisation of the coal sector has highlighted an issue about the need for a qualified SSE and mine manager during suspension. The definition of mining includes maintenance of tailings, spoil heaps and waste dumps. Examples are surface mines with acid mine drainage that need dump maintenance via monitoring water flows and vegetation growth, which may go on for 5 to 50 years during which none of the principal hazards associated with the earlier mining operation would exist MinEx considers requiring an SSE and mine manager is too onerous, and proposes limiting the meaning of suspended mines | <ul style="list-style-type: none"> WorkSafe’s approach is to require a qualified SSE and mine manager unless the site is abandoned, and core responsibilities, such as the requirement for a health and safety management system, need to be in place and implemented, and continue to apply until abandonment. Crown Mineral and Resource Management Act obligations may continue during suspension and even after abandonment. In the longer term, when changes to the HSW Act are considered, it could be useful to clarify or firm up the definition of mining operation to address rehabilitation. |

CONSULTATION PROPOSALS AND OPTIONS – SUSPENDED MINES

- MinEx’s proposal to amend the definition seems inconsistent with the policy intent of ensuring health and safety during the life-cycle of the operation until abandonment. MinEx rightly notes that there is more industry rationalisation in current times, and it is valuable to reconsider what roles and processes are needed to ensure health and safety during suspension, taking account of who is working and the type of activity being undertaken, the roles and responsibilities that exist under other regulatory frameworks, and how it may be determined if principal hazards still exist.
- MBIE seeks feedback on these issues, mindful of the policy intent and alignment with other frameworks during this time, which suggest that an SSE (who is not necessarily present at all times) and a health and safety management plan at a minimum would be needed.

Transitional relief for underground metalliferous mine second exit

12. Second exit (escapeway) proposal

MinEx considers there should be a lengthy transitional period to provide a second exit “trafficable on foot” for a metal mine operating in 2013.

| Issues | 2013 Policy intent | MinEx view | WorkSafe provisional feedback |
|--|---|--|--|
| <p>Escapeways in underground metalliferous mines</p> <ul style="list-style-type: none"> MinEx priority issue <p>(Reg.172)</p> | <ul style="list-style-type: none"> Reg.172 requires underground metalliferous mines to have two exits “trafficable on foot” or one plus a shaft compliant with reg.138 This was based on Queensland/Australian provisions for non-coal mines to have two trafficable exits – Queensland does not specify “on foot”. Similarly, in the MR, new underground coal mines need two drives to allow two trafficable exits (to avoid the Pike River situation of a non-climbable ladder). But coal mines existing in 2013 were given a transitional period till December 2024 to comply with a second drive (due to cost) – HSW Act Sch.1(2) At least two underground metalliferous mines in 2013 (and currently operating) had a ladder as a second exit. The Pike implementation team left it to WorkSafe and industry to develop guidance to determine whether the ladder met the regulation. The current view is that it is non-trafficable on foot in the event of an emergency The MR were corrected in 2016 to add a link provisions regarding trafficable shafts as an alternative form of exit | <ul style="list-style-type: none"> MinEx considers it unfair that no transitional time was allowed for existing metalliferous mines to implement the requirement for trafficable exits as defined Especially as the relevant mine operator considers there is recognised practice for metalliferous mines to have a refuge instead of a second trafficable exit (this reflects the fact there is not the same explosion risk in metalliferous mines, so workers can wait to be rescued, whereas immediate evacuation is essential in underground coal mines) | <ul style="list-style-type: none"> WorkSafe considers that any transitional period would be a matter for government’s decision. WorkSafe notes that regulator exemption may be unsuitable in all cases of breach, and it notes that the issue of secondary egress / a non-trafficable ladder was a major matter in the Pike tragedy WorkSafe suggests clarifying the meaning of “trafficable on foot” and the relevant regulations to ensure requirements are clear and fit for purpose (ie, regs.138, 172 and Schedule 3). WorkSafe understands that provisions for workers underground to escape by foot indicate that escape must not be too physically arduous and also allow for easy assistance of injured workers. Refuges allowing workers to remain safely within a mine awaiting rescue are not the same thing, but may be an alternative approach in certain circumstances. |

CONSULTATION PROPOSALS AND OPTIONS – TRANSITIONAL PERIOD FOR CERTAIN UNDERGROUND METAL MINES

- MBIE recognises that there has been some genuine confusion regarding the requirements of the regulations, including the need to amend them in 2016 to link egress via shaft. This has left an impasse that has not been resolved since the regulations came into effect for existing operations (1 January 2015). MBIE seeks feedback on the standard needed for egress from underground metalliferous mines. As this is likely to mean existing operations having to upgrade their second exit, MBIE also seeks feedback on the idea of a transitional period to December 2024 for metalliferous mines operating in December 2013 to install a suitable second egress. The reasons for this approach are:
 - it is necessary to clarify the standard required given the problems to date
 - if the existing underground metalliferous operations fall short, MBIE proposes setting the expectation of improvement and allowing suitable time for the change to be made subject to having suitable interim safety measures in place – this would be as a matter of fairness as a transitional period till 16 December 2024 was provided for underground coal mines operating in December 2013 (HSW Act Sch.1(2))
 - MBIE understands WorkSafe’s reluctance to use its exemption power for a sensitive matter due to issues about the Pike River non-trafficable ladder
 - MBIE considers that any transitional period would need to be shorter than the 10 years provided for coal, as there has already been an opportunity for the operator to improve its exits, and MBIE understands it would be less costly and complex to replace existing ladder systems than for a coal mine to drill a second drive.

Coverage issues

13. Coverage of tunnels

This is about whether the minimum threshold for tunnel coverage is wrong or too confusing.

| Issues | 2013 Policy intent | MinEx view | WorkSafe provisional feedback |
|---|--|---|--|
| <p>Tunnels coverage</p> <ul style="list-style-type: none"> • Priority for WorkSafe • Issue raised with MBIE by Watercare in 2015 <p>(Reg.6)</p> | <ul style="list-style-type: none"> • The MR cover tunnels under construction, with the policy intent of excluding certain tunnels (HSW Act Sch.3(4)-(5)), which are defined in reg.6 • The policy intent was to bring forward former exclusions that were based on lower risk tunnels, plus provide a trade-off to recognise the impact of tunnel boring technology (ie, direct pipe processes that involve enclosed/vacuum machines), that does not involve the same need for workers working underground nor the same risk. • The intent is also to exclude short, low risk tunnels where up to 2 workers may work underground, so long as there is no methane or use of explosives • This exclusion has proved hard to draft, and was re-written in 2016 to meet the policy intent, as the previous exclusion implied that the regulations applied even where there were no workers underground | <ul style="list-style-type: none"> • In 2015, Watercare was concerned that the regulations were being applied to TBM and machine-drilled tunnels where no-one was ordinarily needing to work underground • Their concern was addressed by the changes in 2016 | <ul style="list-style-type: none"> • WorkSafe notes that in any situation where workers go underground there are risks (eg. confined spaces and gas are often potential hazards in the smallest operations). • For tunnels it is unclear what is meant by nobody “ordinarily” working underground. WorkSafe’s approach is that ordinarily means planned and regular, because workers are more often exposed to principal hazards. • Reg.6(b) of the tunnel exclusion is intended to remove shorter tunnels from coverage of the regulations, but, as worded, it may be covering too many smaller tunnels that pose little risk. WorkSafe suggests that removing the words “where 1 or 2 people ordinarily work” would clarify that tunnels 15 meters or shorter would be excluded, provided there is no methane or usage of explosives. • The consultation could consider including thresholds in the regulations to enable some requirements applying to only activities which pose safety risks. |

CONSULTATION PROPOSALS AND OPTIONS – COVERAGE OF TUNNELS

- MBIE seeks feedback on clarifying the exclusion to recognise that there was intended to be some small trade-off of safety for direct pipe processes, but that tunnels would be covered by the regulations if workers are in fact regularly working underground.
- MBIE seeks feedback on the idea of amending reg.6(b) to remove “where 1 or 2 people ordinarily work”, to have the effect of taking out of coverage all tunnels 15 meters or shorter provided there is no usage of explosives or no methane present.

14. Coverage of tourist mines

This is about whether the full principal hazard management regime and specialist roles are needed for tourist mines.

| Issues | 2013 Policy intent | Industry view | WorkSafe provisional feedback |
|---|---|--|---|
| <p>Tourist mines</p> <ul style="list-style-type: none"> • Priority for tourist mine operator <p>(Application of MR in general)</p> | <ul style="list-style-type: none"> • Following public consultation during development of the MR in 2013, the policy intent was to cover tourist mines, but consider adjustment as appropriate (this intent is reflected in online Pike documents, eg, feedback on submissions) • There are currently no special provisions for tourist mines • Coverage is in the definition of mining operations (HSW Act Sch3, see Appendix 2) | <ul style="list-style-type: none"> • Feedback from former Denniston Mine Experience operators, and more recently from a Westport business operator, is that the full regime is too onerous for tourist mines and not necessary to ensure safety | <ul style="list-style-type: none"> • There are different types of tourist mines in New Zealand. Some are used for example for abseiling into an abandoned mine shaft. These types of mines are: <ul style="list-style-type: none"> ○ Tourism activities in conjunction with normal mining operations ○ Heritage operations, where old mining techniques are a tourist feature ○ Tourism activities conducted in a mine that is not undertaking any mining • Roles and hazard management could look different for the second and third bullets above, whereas the first is still a fully-fledged mining operation. • WorkSafe suggests that some regulatory requirements could be adjusted where tourist mines have little or no risk in relation to the principal hazards of mining, whereas some are still producing and have principal hazards. The SSE role is important depending on the tourist mine size and type of activity. • Any framework for tourist mines needs to avoid creating any loopholes that would miss operations that do need the full regime, e.g. where mining is carried on alongside the tourist operation. • An ACOP could be a way of managing different requirements, and in future, revising the definition of tourist mines in the Act could be an option. |

COSULTATION PROPOSALS AND OPTIONS – COVERAGE OF TOURIST MINES

- The policy intent is for a differential approach for tourist mines, noting that there are different types of tourist mining operations with very different risks and the need to avoid loopholes.
- MBIE proposes, and seeks feedback on, supporting an ACOP for distinguishing between different types of operation and what they need, and supporting this by regulatory change as needed. MBIE notes that such an ACOP would need priority for development due to concerns that have been raised by industry.
- MBIE seeks feedback on whether any specialist CoC may be needed for non-producing tourist mines.

Minor issues List

The following is a list of issues raised by MinEx that it classified as minor. MBIE's seeks feedback on its proposals for consultation in the end column.

| Issues | Summary | 2013 Policy intent | MinEx view | WorkSafe provisional feedback | MBIE seeks feedback on the following proposals |
|--|--|---|--|---|---|
| 15. Manager presence requirement <ul style="list-style-type: none"> MinEx minor issue (Reg.13(1)(b)) | Whether the regulatory requirement is too onerous | <ul style="list-style-type: none"> Manager is required to supervise the health and safety aspects of the mining operation on every day on which any mine worker is at work | <ul style="list-style-type: none"> MinEx is concerned that the requirement to have a manager present whenever workers are at work is very prescriptive and not always possible. | <ul style="list-style-type: none"> WorkSafe notes that managers are currently not on site all the time (eg, most managers work just on day shift), and the regulator is not approaching the provision as the submitter suggests. | <ul style="list-style-type: none"> MBIE seeks feedback on whether concern could be resolved by clarification without need for regulatory change, or the clause could be clarified, eg, by amending the "supervise" requirement to reflect the need for oversight and responsibility rather than direct supervision |
| 16. Need for "acting" roles <ul style="list-style-type: none"> MinEx minor issue (Reg.23) | The regulations only make provision for acting SSE and manager | <ul style="list-style-type: none"> The regulations were simplified during drafting For a mine manager, underviewer or supervisor, the practice was for an appointed competent person to have at least the next level of qualification down Generally, in respect of covering other statutory roles, the same approach should apply as the SSE – the delegation arrangements are part of the mine's management system and would be part of the relevant documented control plans. These delegation arrangements would need to be context specific – eg, if a ventilation officer was absent for an extended period during a major rebuild, the level of qualification/ competence required would be different from a suspended mine | <ul style="list-style-type: none"> Currently there are allowances to appoint an acting manager only for the roles of manager and SSE. This provision should be in place for all safety critical roles. | <ul style="list-style-type: none"> WorkSafe mentions that it would support other acting roles, but suggests that the regulations could enable the person in the acting safety critical role to have the appropriate CoC. | <ul style="list-style-type: none"> MBIE notes the policy intent for acting roles to have at least the next level of qualification down, and seeks feedback on how this could work with other specialist roles In light of the intent that this be left to operators' management systems, MBIE proposes no regulatory change MBIE considers acting roles need to be understood as limited term in the same way as manager roles |
| 17. Supervision of untrained workers <ul style="list-style-type: none"> MinEx minor issue (Reg.50) | Untrained workers – whether they need to be accompanied at all times | <ul style="list-style-type: none"> This provision supports the policy intent that mine workers are not able to work unsupervised without the proper training – not meaning an appointed supervisor, but more of a "buddy". Wording was changed to "accompanied by" instead of supervised to reflect this | <ul style="list-style-type: none"> It is not always necessary or possible to accompany untrained workers – and an alternative concept of "closely supervised" is proposed | <ul style="list-style-type: none"> WorkSafe considers that this not a problem It could be worth considering "closely supervise" instead, this would need to be defined | <ul style="list-style-type: none"> MBIE notes the policy intent and the way it is being approached, and is reluctant to change the provision, especially as WorkSafe has not yet specified minimum competencies for mine workers. (Note: the youth review in the wider regulatory work programme will consult later this year on specifying a minimum entry age for mining.) |

| Issues | Summary | 2013 Policy intent | MinEx view | WorkSafe provisional feedback | MBIE seeks feedback on the following proposals |
|--|--|--|--|---|--|
| <p>18. Competency for assessing geotech and inrush issues</p> <ul style="list-style-type: none"> MinEx minor issue <p>(Regs.71, 73)</p> | <p>PHMPs for ground/strata instability and inrush involve assessments by a “competent” or “suitable qualified and experienced” person respectively – these terms are not defined</p> | <ul style="list-style-type: none"> Competent person is used in several places in the MR. It is already defined in the interpretation section (see below) and sometimes has further explanation in particular regulations The policy intent is to ensure adequate and proportionate third-party checking, without prescribing a specialist CoC This helps keep the regime proportionate, and is linked to the idea that PHMPs may not always be needed for certain operations, but, where needed, the operation may have lower risks and need a lower level of assurance than for high risk operations Clear policy intent that surface mines with old underground workings would need mine surveyor CoC Existing definition: <ul style="list-style-type: none"> “competent person means a person who— <ul style="list-style-type: none"> <i>(a) has the relevant knowledge, experience, and skill to carry out a task required or permitted by these regulations to be carried out by a competent person; and</i> <i>(b) has—</i> <ul style="list-style-type: none"> <i>(i) a relevant qualification evidencing the person’s possession of that knowledge, experience, and skill; or</i> <i>(ii) if the person is an employee, a certificate issued by the person’s employer evidencing the person’s possession of that knowledge, experience, and skill</i> | <ul style="list-style-type: none"> MinEx is raising concerns about a need for a better definition about the level of competency for geotechnical and inrush specialists | <p>WorkSafe suggests that further clarity about what is required would be useful, eg, an example could be considering how the definition in the HSW Asbestos Regulations of “competent person”:</p> <p><i>“person who has the knowledge, experience, skills, and qualifications to carry out a particular task under these regulations, including any knowledge, experience, skills, and qualifications prescribed in a safe work instrument”</i></p> <p><i>“a person who has acquired, through training and experience, the knowledge and skills of relevant asbestos removal industry practice and who holds—</i></p> <p><i>(a) a certificate in relation to a training course specified by WorkSafe for asbestos assessor work; or</i></p> <p><i>(b) a tertiary qualification in occupational health and safety, occupational hygiene, science, or environmental health”</i></p> | <ul style="list-style-type: none"> MBIE proposes no change, as it considers that the existing definition already provides a useful steer and is proportionate MBIE does not support using a regulatory approach with the need for a course set by the regulator, otherwise this is no different from a CoC |

| Issues | Summary | 2013 Policy intent | MinEx view | WorkSafe provisional feedback | MBIE seeks feedback on the following proposals |
|--|--|--|---|--|--|
| <p>19. Spontaneous combustion (spon-com)</p> <ul style="list-style-type: none"> MinEx minor issue (Reg.88) | <p>Whether PHMPs needed in surface mines for spon-com (reg.88)</p> | <ul style="list-style-type: none"> PHMPs are required in underground coal mines if risk appraisal determines there is a likelihood of spon-com The regulation does not apply to surface mines, where the risk assessment and appraisal processes would determine if there is a spon-com principal hazard | <ul style="list-style-type: none"> MinEx considers that PHMPs for spon-com should be limited to underground operations, since this does not constitute a principal hazard in an opencast situation | <ul style="list-style-type: none"> WorkSafe notes that there are spontaneous combustion instances at surface mines, some very serious (eg, at the Strongman mine) There are very rare instances of spontaneous combustion in sulphide rich metal ores but there are no operations of this type in NZ. WorkSafe suggests that site risk appraisal and assessment will determine need for PHMP Spontaneous combustion is a likely hazard in any NZ coal mine, but the appraisal should assess whether it is a principal hazard or is dealt with in other plans (potentially fire and explosion) | <ul style="list-style-type: none"> MBIE sees no need for change, as it agrees that realistic risk appraisal and assessment are key to this issue – as principal hazard management is only needed where the hazard creates a real risk of multiple fatalities from a single event or series of events However, it seeks feedback on whether there is any basis for clarification about the trigger for the need for principal hazard management |
| <p>20. Contractor health monitoring</p> <ul style="list-style-type: none"> MinEx minor issue (Reg.127) | <p>Health monitoring is not always possible for brief, short-notice visits</p> | <ul style="list-style-type: none"> This provision requires offering medical examinations immediately before workers starts, before they cease working at the mine if not examined within 12 months, and no less than once every 5 years. These timeframes indicate that it is aimed at long term effects, not short term contractors | <ul style="list-style-type: none"> Is not always possible where contractors are used for maintenance on short notice and for a short duration | <ul style="list-style-type: none"> Typical health monitoring takes the form of pre-employment checks (baseline) and then periodic further checks against that baseline. If a person is engaged as a contractor for just a few weeks and then is exposed to other sources of health harm at other sites as a contractor elsewhere the attribution of harm or the identification of harm is very difficult. WorkSafe suggests that clarification is important, and checks could apply, eg, after 4-weeks' continuous work. WorkSafe generally looks for the mine operator to offer medical examinations of all contractors. | <ul style="list-style-type: none"> MBIE notes that this provision is aimed at long term effects, not short term workers MBIE proposes clarification of the application of this clause to long term workers at the point of starting, whether employees or contractors, eg, within 30 days MBIE considers that duties in the HSW Act regarding PCBUs working together to manage risks need to be noted to ensure the safety of short-term contractors who may be exposed to health risks associated with mining operations |

| Issues | Summary | 2013 Policy intent | MinEx view | WorkSafe provisional feedback | MBIE seeks feedback on the following proposals |
|---|---|---|---|--|--|
| 21. Tunnels using TBMs <ul style="list-style-type: none"> MinEx minor issue (Regs.132) | Whether drilling ahead for water is needed as they are set up for this hazard | <ul style="list-style-type: none"> Drilling ahead is where there may be a risk of a hazard arising from water in old workings. During policy development for the regulations, there was a question about how practical this regulation is where tunnel boring machines (TBMs) are used | <ul style="list-style-type: none"> MinEx considers TBMs should not need to drill ahead for water since the support is designed around this hazard and the last thing you want to do is drill into the hazard | <ul style="list-style-type: none"> WorkSafe makes note of situations where pressurised face tunnel TBM construction is being undertaken – if change were considered to recognise this, there would need to be an amendment to reg.132 But some tunnel construction methodology will still need drilling ahead, and the regulations remain appropriate. | <ul style="list-style-type: none"> MBIE seeks feedback on whether the regulations need amendment to exclude pressurised face TBMs. MBIE is also interested in views about the alignment of this provision with inrush principal hazard management plans, and if it may be misleading to specify drilling ahead rather than attending to inrush risks from different directions |
| 22. Airflow for diesel emissions <ul style="list-style-type: none"> MinEx minor issue (Reg.154) | This provides a minimum specification for diesel emissions | <ul style="list-style-type: none"> Intention was to retain existing minimum | <ul style="list-style-type: none"> MinEx considers the specification of emission levels is too prescriptive and doesn't allow for engine technology advances | <ul style="list-style-type: none"> Technological advances can sometimes increase the risk. Prescription is important in this area - note that NZ is at a lower ventilation level than Australia. Ventilation requirements take into account diesel emissions, cooling of workplaces and removal of other work related dust. Any reduction of air requirements would increase exposure of workers to all of these hazards. | <ul style="list-style-type: none"> MBIE proposes no change to the specification |
| 23. Staged submissions for PHMPs <ul style="list-style-type: none"> MinEx minor issue (Regs 53,.212) | Draft PHMPs and PCPs need to be provided to WorkSafe | <ul style="list-style-type: none"> This allows WorkSafe to view the plans as they are being made and provide feedback/ check that principal hazard management is appropriate in advance of the start of key stages of operation | <ul style="list-style-type: none"> Staged submission of PHMPs needs to be allowed for tunnels as they are developed | <ul style="list-style-type: none"> There is nothing in the regulations to prevent this happening before the 2 months minimum notification requirement. WorkSafe understands that plans need to be finalised by the SSE before the project commences. Where plans are expanded to take into account change of scope of work, this too would need to be completed before undertaking the new work. | <ul style="list-style-type: none"> MBIE proposes no change, as staged submission can already occur provided the 2 month minimum notification is met – which allows for change and finalisation from draft into final plan before work commences |

| Issues | Summary | 2013 Policy intent | MinEx view | WorkSafe provisional feedback | MBIE seeks feedback on the following proposals |
|--|---|--|---|---|--|
| 24. Review of PHMPs every 2 years of being made • MinEx minor issue (Reg.69) | PHMPs have to be reviewed two yearly from when they were made, and some industry want definition of when a PHMP is made | <ul style="list-style-type: none"> Principal hazard management and control plans are intended to be regularly reviewed – at least two yearly | <ul style="list-style-type: none"> Some submitters to MinEx had problems with the term “made”, for the purpose of when to review | <ul style="list-style-type: none"> WorkSafe suggests this could be the date when the draft plan is submitted under reg.212 | <ul style="list-style-type: none"> MBIE proposes no change – plans are made before the operator starts key stages of the operation (or any time earlier that the SSE may confirm that the plan is ready) |
| 25. Mine plan requirements are generic • MinEx minor issue (Regs213, 217) | Mine plans must be prepared using a mine surveyor using the NZ Geodetic Datum 2000 (NZGD2000) and to a suitable scale | <ul style="list-style-type: none"> This intends to give effect to the Royal Commission recommendation for plans to be reviewed by an appropriate surveyor, and for alignment between different regulatory systems (the NZGD2000 is used by the Crown Minerals regime) | <ul style="list-style-type: none"> Generic documentation for all operations may create unnecessary documentation for some | <ul style="list-style-type: none"> WorkSafe supports retaining NZGD2000. WorkSafe also suggests adapting the details required in mine plans to suit particular types of operations and/or commodities. | <ul style="list-style-type: none"> MBIE generally supports retention of NZGD2000, which is consistent with the policy intent, with the exception that it seeks feedback on suitability for urban construction tunnels MBIE seeks feedback on possible adaptations of the requirements for mine plans in relation to different types of mining and/or commodities |
| 26. Mine sealing requirements are prescriptive WorkSafe minor issue Industry issue (Regs.182, 183 and Schedule 4) | Requirements for sealing a mine are very prescriptive and do not allow to apply the concept of ‘reasonably practicable’ | <ul style="list-style-type: none"> | <ul style="list-style-type: none"> Has not considered this issue | <ul style="list-style-type: none"> The regulatory requirements related to sealing a mine are very specific, which could lead to unnecessary non-compliance, and in some circumstances the risks may not even exist. WorkSafe suggests adding words into reg.183 that would ensure a barricade was installed and constructed in a way that would prevent unauthorised access if it was not reasonably practicable to install a Type B seal | <ul style="list-style-type: none"> MBIE seeks further information about the need for sealing, and seeks feedback on WorkSafe’s suggestion |
| 27. Minor fixes, eg, Sch.5&6, ESRs • MinEx minor issue | Tidy up anomalies and pick up HSW changes | <ul style="list-style-type: none"> NA | <ul style="list-style-type: none"> Tidy up/anomalies, eg, alignment of notifications under HSW Act and MR | <ul style="list-style-type: none"> Agree | <ul style="list-style-type: none"> MBIE seeks feedback on any minor matters in the regulations or ESRs such as typos, minor inconsistencies |

Appendix 1 – Policy intention background on the principal hazard management regime

- The hazard management regime in the *Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016* (MR) is tailored, and is not a one-size-fits all. It is intended to be proportionate for all types of mining operation, and not impose the stringent regime for underground coal mines across the board. This subtlety may be being lost based on industry and regulator feedback, so this provides an explanation of the policy intent for how the regulations were designed to be proportionate.
- The MR impose a systematic health and safety management system (HSMS) process on all mining operations (Part 3), but they impose the onerous principal hazard management (Parts 4 and 5) only where warranted by the presence of principal hazards, ie, those that could cause multiple fatalities from a single /series of recurring events (reg.65).
- Principal hazard management involves a system of detailed principal hazard management or principal control plans (PHMPs and PCPs), that come with requirements for specialist oversight – linking Parts 4 and 5 with Part 2 (roles and competencies).
- The idea is that the regime is nuanced through risk assessment and appraisal (regs.54-55), so that –
 - not all mining operations will have principal hazards, and
 - not all will need any/all PHMP/PCPs,
 - and consequently not all will need specialist roles.
- The MR list some principal hazards, but the list is not intended to be complete, and there are general provisions for developing PHMPs (reg.68). The regulations only specify a few mandatory PHMPs and PCPs (eg, 66(2), application clauses). Reading Parts 4 and 5, the specific list of hazards will always apply to underground coal mining if the hazard is present at all, and similarly many will apply to underground mining and tunnels. Risk assessment and appraisal determine whether and how they apply for higher/lower risk surface mines.
- Some good illustrations of the nuancing are:
 - all surface mines will have some degree of ground/strata instability (regs.65, 66, 67 and 71) but only those where it could cause multiple fatalities need principal hazard management and geotechnical specialists (geotechnical)
 - there has to be a real risk of inrush as a principal hazard to warrant application of a PHMP (see how reg.73(1) links back to risk appraisal in reg.66 – this clause was deliberately included to demonstrate the policy intent that the PHMP and qualified/competent person requirement would be driven by risk appraisal and wouldn't apply to all mines).
- PCPs need explanation as they are more conceptually complex. They were an innovation in the MR arising from learnings in the Queensland system that only had PHMPs. There needed to be a way of cross-cutting over linked principal hazards to focus on a system approach rather than controlling a single hazard. They are for situations beyond a single principal hazard that can be managed with a PHMP, and coordinate related types of hazards and controls in a single plan.
- Mechanical and electrical PCPs import onerous requirements and oversight by a specialist role of mechanical or electrical superintendent. They are particularly tricky as they could be read as being needed any time there is machinery or electrical equipment in all mines, eg, vehicles. But, what was expected in using the risk appraisal was some form of scale, or a nexus between equipment and the risk of fire or explosion posing a principal hazard.

- Further information about policy intent – the following is from the September 2013 document, *Safe mines: safe workers, Response to submissions*, p14 (<http://www.mbie.govt.nz/info-services/employment-skills/workplace-health-and-safety-reform/pike-river-implementation/document-and-image-library/safe-mines-safe-workers-response-to-submissions.pdf>):

“Is every safety critical role required at every operation?”

“We received a lot of feedback on the need for certain safety critical roles. The concern of smaller mining operators in particular was that new safety critical roles such as mechanical engineering [superintendent] and electrical engineering [superintendent] would be required for all mining operations and that this was unreasonable and unnecessary.

“In response, we have clarified that the intention is only to require those roles where the relevant hazards and controls exist. For example, a mining operation without a high voltage electricity supply or fire and explosion risks will not have the requisite principal hazard management plans or electrical engineering control plan. Therefore, in this case it may not be required to appoint an electrical engineering manager.

“The regulations will clarify that safety critical roles are only required where the principal hazard specific to that role exists. However, note that an SSE is required for every mining operation.”

- The September 2013 document (link above) also explains the rationale for exclusion of quarries from the hazard management processes in the MR.

Appendix 2 – Relevant definitions from HSW Act and regulations, and other legislation

Definitions of mining operation and quarrying operation – HSW Act Sch.3 clauses (2)-(3), and alluvial mining operation in clause (1)

2 Meaning of mining operation

In this schedule, mining operation—

- (a) means the extraction of coal and minerals and the place at which the extraction is carried out; and
- (b) includes any of the following activities and the place at which they are carried out:
 - (i) exploring for coal:
 - (ii) mining for coal or minerals:
 - (iii) processing coal or minerals associated with a mine:
 - (iv) producing or maintaining tailings, spoil heaps, and waste dumps:
 - (v) the excavation, removal, handling, transport, and storage of coal, minerals, substances, contaminants, and wastes at the place where the activities described in subparagraphs (i) to (iv) are carried out:
 - (vi) the construction, operation, maintenance, and removal of plant and buildings at the place where the activities described in subparagraphs (i) to (iv) are carried out:
 - (vii) preparatory, maintenance, and repair activities associated with the activities described in subparagraphs (i) to (iv); and
- (c) includes—
 - (i) a tourist mining operation:
 - (ii) a tunnelling operation; but
- (d) does not include—
 - (i) exploring for minerals:
 - (ii) an alluvial mining operation:
 - (iii) a mining operation wholly on or under the seabed on the seaward side of the mean high-water mark:
 - (iv) a quarrying operation.

3 Meaning of quarrying operation

(1) In this schedule, quarrying operation—

- (a) means an activity carried out above ground for the purpose of—
 - (i) extracting any material, other than coal or any mineral, from the earth; or
 - (ii) processing any material, other than coal or any mineral, at the place where the material is extracted; and
 - (b) includes the place where an activity described in paragraph (a) is carried out; and
 - (c) includes any place in which any material extracted or processed in a quarry is crushed or screened.
- (2) Subclause (1) applies whether or not the material is to be extracted or processed for commercial gain and whether or not the material is extracted or processed by the use of explosives.

alluvial mining operation means a mining operation carried out above ground and associated with—

- (a) the extraction of gold from river deposits of sand or gravel:
- (b) the extraction of ironsand from sand or gravel

Definitions of suspension – MR reg3

suspended means,—

- (a) in relation to a mining operation other than a tunnelling operation, that the activities listed in clause 2(a) and (b) of Schedule 3 of the Act are, for the time being, not being carried out, but the mining operation has not been abandoned; and
- (b) in relation to a tunnelling operation, that tunnelling activities are, for the time being, not being carried out, but the tunnelling operation has not been abandoned.

Excluded tunnelling operations – MR reg6

6 Declaration of excluded tunnelling operations

The following classes of operation are declared not to be tunnelling operations for the purposes of clause 4 of Schedule 3 of the Act:

- (a) an operation relating to a tunnel or shaft that is, or is intended to be, of any length where no person ordinarily works underground:
- (b) an operation relating to a tunnel or shaft that is, or is intended to be, 15 metres or less in length where 1 or 2 people ordinarily work underground at any one time in the tunnel or shaft, but only if—
 - (i) no explosives are used underground in the tunnel or shaft; and
 - (ii) the concentration of methane is unlikely to be more than 0.25% of the general body of air in any working area of the tunnel or shaft.

HSE Regulations provision for “construction work”

The Health and Safety in Employment Regulations 1995 (HSE Regulations) were carried over by the HSW Act aside from what was replaced by the HSW (General Risk) Regulations 2016 (HSW Act Sch.1(2)). There are provisions remaining in the HSE Regulations relating to hazardous work notifications, including “construction work” as defined. The definition in reg2, set out below, operates as a boundary to work that is within the construction sector rather than the quarry sector.

construction work—

- (a) means any work in connection with the alteration, cleaning, construction, demolition, dismantling, erection, installation, maintenance, painting, removal, renewal, or repair, of—
 - (i) any building, chimney, edifice, erection, fence, structure, or wall, whether constructed wholly above or below, or partly above and partly below, ground level:
 - (ii) any aerodrome, cableway, canal, harbour works, motorway, railway, road, or tramway:
 - (iii) any thing having the purpose of drainage, flood control, irrigation, or river control:
 - (iv) any distribution system or network having the purpose of carrying electricity, gas, telecommunications, or water:
 - (v) any aqueduct, bridge, culvert, dam, earthwork, pipeline, reclamation, reservoir, or viaduct:
 - (vi) any scaffolding; and
- (b) includes any work in connection with any excavation, preparatory work, or site preparation carried out for the purposes of any work referred to in paragraph (a); and
- (c) includes any work referred to in paragraph (a) or paragraph (b) carried out underwater, including work on buoys, obstructions to navigation, rafts, ships, and wrecks; and
- (d) includes the use of any materials or plant for the purposes of any work referred to in any of paragraphs (a) to (c); and
- (e) includes any inspection or other work carried out for the purposes of ascertaining whether any work referred to in any of paragraphs (a) to (c) should be carried out; but
- (f) does not include any work in any mine, quarry, or tunnel.

Changes 1996-2016 to regulations for A, B, and site-specific quarry CoCs

The current reg.21 of the MR 2016, which came into effect 1 April 2016 with HSWA fixed a typo from MR 2013. In 2013 version, reg.21(2) said “no” explosives are used, whereas previous HSE Mining Administration regs did not include the “no”. See regs below.

Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016

21 Certificate of competence of manager of quarrying operation

- (1) Subject to subclauses (2) and (3), a manager appointed to a quarrying operation must hold a certificate of competence as an A-grade quarry manager.
- (2) A manager appointed to a quarrying operation in which explosives are used and not more than 4 quarry workers ordinarily work at any one time may hold a certificate of competence as a B-grade quarry manager.
- (3) A manager appointed to a quarrying operation in which no explosives are used may hold—
 - (a) a certificate of competence as a B-grade quarry manager; or
 - (b) a certificate of competence as a manager to manage that quarry, being the quarry specified in the certificate.

2013 Regulations – typo in (2), includes “no” - Health and Safety in Employment (Mining Operations and Quarrying Operations) Regulations 2013

21 Certificate of competence of manager of quarrying operation

- (1) Subject to subclauses (2) and (3), a manager appointed to a quarrying operation must hold a certificate of competence as an A-grade quarry manager.
- (2) A manager appointed to a quarrying operation in which **no** explosives are used and not more than 4 quarry workers ordinarily work at any one time may hold a certificate of competence as a B-grade quarry manager.
- (3) A manager appointed to a quarrying operation in which no explosives are used may hold—
 - (a) a certificate of competence as a B-grade quarry manager; or
 - (b) a certificate of competence as a manager to manage that quarry, being the quarry specified in the certificate.

Health and Safety in Employment (Mining Administration) Regulations 1996

18. Certificate of competence of manager of quarry-

- (1) Subject to subclauses (2) and (3) of this regulation, every manager appointed to an operation in which a quarry is worked shall be the holder of a certificate of competence as an A-grade quarry manager.
- (2) A manager appointed to an operation in which a quarry is worked may, where the quarry is one in which explosives are used and in which not more than 4 people ordinarily work at any one time, be the holder of a certificate of competence as a B-grade quarry manager.
- (3) A manager appointed to an operation in which a quarry is worked may, where the quarry is one in which no explosives are used, be the holder of
 - (a) A certificate of competence as a B-grade quarry manager; or
 - (b) A certificate of competence as a manger to manage that quarry, being the quarry specified in the certificate.

Queensland Mining and Quarrying Safety and Health Regulation 2017 (Ch2, Ways of achieving an acceptable level of risk)

59 Disposal

- (1) This section applies to the following things at a mine—
 - (a) hazardous substances or dangerous goods that have deteriorated or are past their use-by date;
 - (b) hazardous substances or dangerous goods, or anything contaminated by the substances or goods, that are no longer required for use at the mine, including, for example, because the mine is to be abandoned.
- (2) Subject to section 73, the site senior executive must ensure the substances, goods or things are disposed of—
 - (a) in accordance with the relevant MSDS or information provided by the manufacturer, importer or supplier under section 43(2)(a) of the Act; and
 - (b) in a way that does not create an unacceptable level of risk during operations at the mine, after the mine's operations stop or after the mine is abandoned.
- (3) The site senior executive must ensure the site of each permanent disposal facility, or other disposal area for hazardous substances or dangerous goods at the mine, is shown on the plans of the mine workings under section 58 of the Act.

Appendix 3 – Abbreviations

| Abbreviation | Meaning |
|--------------|--|
| ACOP | Approved Code of Practice |
| AQA | Aggregate and Quarry Association |
| CoC | Certificate of Competence |
| ESRs | Electricity (Safety) Regulations 2010 |
| HSMS | Health and safety management system |
| HSW Act | <i>Health and Safety at Work Act 2015</i> |
| ITO | Industry Training Organisation (MITO is the relevant ITO for mining qualifications) |
| MITO | Motor Industry Training Organisation |
| MR | Mining Regulations, ie, <i>Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016</i> |
| NZQA | New Zealand Qualifications Authority |
| PCBU | Person conducting a business or undertaking |
| PHMP | Principal hazard management plan (Part 4 MR) |
| PCP | Principal control plan (Part 5 MR) |
| SSE | Site Senior Executive (required mining-specific officer role in MR, reg.8) |
| TBM | Tunnel boring machine |