Minerals Industry Safety and Health Centre

6 December 2019

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA
CREATE CHANGE

Expert Legal Assessment MQSHA, MQSHR, and Guidelines

The University of Queensland

Ranked in the world's top 50,[1] The University of Queensland (UQ) is one of Australia's leading research and teaching institutions. UQ strives for excellence through the creation, preservation, transfer and application of knowledge. For more than a century, we have educated and worked with outstanding people to deliver knowledge leadership for a better world.

Sustainable Minerals Institute

The Sustainable Minerals Institute (SMI) is a world-leading[2] research institute committed to developing knowledge-based solutions to the sustainability challenges of the global resource industry, and to training the next generation of industry and community leaders.

Minerals Industry Safety and Health Centre

The Minerals Industry Safety and Health Centre has provided research, advice and education to industry on all matters relating to safety and health for more than twenty years. The backgrounds of MISHC staff are varied, and collectively cover the breadth of occupational safety and health related disciplines such as risk management (including principal hazard management and emergency response, risk management tools and techniques), occupational health (eg. chemicals, dust, vibration) psychology (fatigue, stress), and physiotherapy, as well as human factors and ergonomics.

T.C. Beirne School of Law

The T.C. Beirne School of Law is a global centre of research excellence, receiving a world ranking of 40th in the 2019 Times Higher Education World University Rankings. The School undertakes research across a wide range of legal fields and has well-established strengths in private law, public and international law, socio-legal and criminal justice studies, and legal theory. The School makes a significant and lasting contribution to the understanding and development of law nationally and internationally, the effectiveness of law as a discipline, and to further understanding of the law's relationship with other fields.

Contributors

Susan Johnston
Industry Fellow
MISHC

Russell Hinchy
Lecturer
T.C. Beirne School of Law

Carmel Bofinger
Associate Professor
MISHC

David Cliff
Professor of OHS in Mining
MISHC

[1] QS World University Rankings & Performance Ranking of Scientific Papers for World Universities (2018).

[2] The University of Queensland is ranked first in the world for mining and mineral engineering, 2018 Shanghai Rankings by subject.

Contents

1 Introduction

The *Mining and Quarrying Safety and Health Act 1999* (Qld) (MQSHA) requires, at section 67(2)(a), that the Mining Safety and Health Advisory Committee (MSHAC) periodically review the effectiveness of the Act, Regulations and Guidelines. This Report has been prepared to assist MSHAC to discharge its accountabilities under section 67(2)(a).

The Report constitutes an independent expert assessment of the intrinsic adequacy of the legal framework governing mining and quarrying safety and health in Queensland. The assessment has been conducted by a multidisciplinary team from The University of Queensland, incorporating representatives from the Sustainable Minerals Institute's Minerals Industry Safety and Health Centre (MISHC), and the T.C. Beirne School of Law.

The Report highlights key issues for MSHAC to consider in the context of its primary function to 'give advice and make recommendations to the Minister about promoting and protecting the safety and health of persons at mines'.[1]

The assessment team is acutely aware that the legislative framework is but one component of the many factors that can influence safety and health in Queensland's mining industry. Nevertheless, how the Act, Regulations, and Guidelines, are constructed certainly has the potential to impact on safety and health outcomes. Ensuring that the legislative framework is as clear, coherent, current and comprehensive as it can be is therefore an important task.

2 Scope

In accordance with the scope provided to us by the Queensland Commissioner for Mine Safety and Health (the Commissioner), this Report considers the extent to which the MQSHA, the associated *Mining and Quarrying Safety and Health Regulation 2017* (Qld) (MQSHR), and the related Guidelines are:

Clear	Are obligations and requirements unambiguous, and able to be readily understood?
Coherent	Are related aspects logically linked? Does the framework avoid contradiction? Is there an appropriate balance between the MQSHA, the MQSHR, and the guidelines?
Current	Does the legislative framework take account of current mining practices and developments in mining safety and health?
Comprehensive	Are there any significant gaps in the framework?

The above questions are significant ones. Central to the rule of law are the requirements that laws be clear so that citizens can comply with them; that laws be free from contradictions; and that laws requiring the impossible be avoided.[2] Clarity of legislative drafting is a fundamental legislative principle under the *Legislative Standards Act 1992* (Qld) which states, in effect, that good law 'is unambiguous and drafted in a sufficiently clear and

1 Section 67 (1) *Mining and Quarrying Safety and Health Act 1999*.

2 Lon Fuller, *The Morality of Law* (New Haven: Yale University Press, revised edition, 1969), pp. 46-81.

precise way'.[3]

It is important to note that this Report does not encompass any evaluation of how effectively, or otherwise, the legislative framework governing safety and health in the Queensland mining industry is implemented. Such an evaluation would require separate processes.

It is also important to realise that the assessment team were not asked to consider whether any fundamental realignment of the legislative framework is required. That is, we were not asked to consider whether harmonisation of the mining and quarrying safety and health framework with Queensland coal mining safety legislation, general workplace health and safety legislation, or mining specific legislation elsewhere, was appropriate. Rather, the assessment team worked from the given premise that the overarching architecture of a separate mining and quarrying safety and health Act, Regulations, and Guidelines, would remain.

Finally, for the avoidance of any doubt, this Report is not, and does not purport to be, 'legal advice' to the Commissioner, MSHAC, or the Queensland Government.

3 Methodology & Approach

3.1 Relationship to assessment of coal legislative framework

Prior to undertaking this assessment of the MQSHA, MQSHR, and Guidelines, the assessment team completed a similar examination of the legislative framework governing safety and health in the Queensland coal industry.

However, in accordance with our scope, although this analysis of the MQSHA, MQSHR, and Guidelines utilises the same methodology as the earlier coal work, it has been conducted as a discrete exercise. That is, the assessment team has considered the intrinsic adequacy, or otherwise, of the mining and quarrying safety legislative framework on its own merits. While some key issues common to both the mining and quarrying, and coal, safety regimes are highlighted; the assessment team has not undertaken any form of comprehensive comparative analysis of the two legislative frameworks.

3.2 Assessment components

The expert assessment of the MQSHA, MQSHR, and Guidelines consisted of three broad components:

1. A desktop analysis of the legislative framework, along with relevant court decisions, and coronial inquiries. The framework itself was scrutinised in accord with current approaches to statutory interpretation as identified by both the High Court of Australia and the Court of Appeal of Queensland, that is, through consideration of text, context

[3] Section 4(3)(k), *Legislative Standards Act 1992* (Qld).

and statutory purpose.[4] The desktop analysis also considered whether the MQSHR falls within the scope of the regulation-making power of the Act.[5]

2. Semi-structured interviews with industry representatives from a wide range of backgrounds. Our consultation list for this purpose was provided by the Commissioner. Interviewees ranged from representatives of large organisations, to those working in single person operations. Interviews were used to obtain views as to those aspects of the MQSHA, MQSHR, or Guidelines that were felt to be difficult to understand, open to multiple interpretations, or out of date. We also sought interviewee perspectives on gaps in the framework.

3. Re-evaluation of the legislative framework in the light of insights provided by interviewees.

3.3 Interview protocols

All interviews were conducted on the basis that detailed interview records would only be shared within the assessment team. Interviewees were also advised that while points made during their interview might be utilised in this Report; those points would not be attributed to individuals or organisations without prior agreement. The assessment team took this approach to allow interviewees the opportunity to express their views free of any need to be seen to be providing a 'representative' opinion. Some interviewees also subsequently provided supplementary material to the assessment team. This supplementary material has been treated as 'interview records' for the purposes of this Report.

Our interviewees provided comments at multiple levels. In a single interview there could be discussion of core principles and obligations underpinning the MQSHA; as well as very specific changes deemed to be necessary to the wording of single provisions. We have endeavoured to analyse all of these comments. On occasion, comments were made which reflected a lack of awareness of the provisions of the MQSHA or MQSHR, (for example, where an interviewee called for a provision to be inserted, that was already within one of those documents). We have not taken any further action in relation to those comments. We have compared all other points made in interviews with the actual wording of the legislative framework to ensure that issues identified are genuinely within scope, and relate to the contents of the framework, rather than to its implementation.

Many interviewees highlighted what they saw as gaps in the legislative framework. In some cases, the issues identified arose from technological change in the years since the promulgation of the MQSHA. In other instances, interviewees put forward policy changes that they believed needed to be made. Again, we have endeavoured to record all potential 'gaps' regardless of the basis on which they have been identified. Having said this, where we are of the view that an issue would require substantive industry discussion and

---

4 See, for example, *Sztal v Minister for Immigration and Border Protection* [2017] HCA 34; *SAS Trustee Corporation v Miles* [2018] HCA 55; *Comcare v Banerji* [2019] HCA 23; *Simonova v Department of Housing and Public Works* [2019] QCA 10.

5 The approach taken by the Supreme Court of Queensland in *Maryrorough Solar Pty Ltd v The State of Queensland* [2019] QSC 135 was applied.

evaluation before any change could or should be made, we have not provided any further detailed comment. We are conscious that the assessment team has no decision-making role in this regard.

3.4 Report structure

This Report begins by highlighting five core issues relevant to consideration of the legislative framework as a whole.

The Report then deals, in turn, with the content of the MQSHA; the MQSHR; and the Guidelines; respectively (recognising that issues in one instrument, may well have consequential impacts on another). Within each of these parts, we have identified:

- Provisions that are unclear
- Potential gaps.

For each issue identified, we have then proposed an approach for consideration by MSHAC. As will be seen, in some instances the assessment team has put forward specific changes to the wording of individual sections. In others, given the policy complexity of the issues raised; or their technical nature; we have suggested that further discussion within relevant industry forums is required.

4 Core Issues

4.1 Acceptable Level of Risk

The legislative framework governing safety and health in the Queensland mining and quarrying industry is underpinned, just as the counterpart coal safety legislation is, by the concept of 'acceptable level of risk'.

Throughout the framework, the success or failure of safety and health measures is required to be judged against whether or not an 'acceptable level of risk' is achieved. Obligations, such as those applying to Site Senior Executives (SSEs) in s39 MQSHA; defences in proceedings such as those applying in s45 MQSHA; the actions of key functionaries under the Act including inspectors, and Site Safety and Health Representatives; the standard underpinning the safety and health management system in s55 MQSHA; and many other aspects of the legislative framework, are all based around this concept.

It is critical, then, that 'acceptable level of risk' is clearly defined. Without clarity, there is a real prospect that obligation holders may be uncertain as to what standard they are required to meet; mine workers may experience inconsistent levels of safety and health management; enforcement may be uneven; and prosecutions may be poorly constructed.

The concept of 'acceptable level of risk' is described in s26 MQSHA. Given the significance of this section to the entirety of the mining safety and health legislative framework, the section is reproduced below in full.

26 What is an acceptable level of risk

*(1) For risk to a person from operations to be at an **acceptable level,** the operations must be carried out so that the level of risk from the operations is-*

(a) within acceptable limits; and

(b) as low as reasonably achievable.

(2) To decide whether risk is within acceptable limits and as low as reasonably achievable regard must be had to-

(a) the likelihood of injury or illness to a person arising out of the risk; and

(b) the severity of the injury or illness.

It is important to appreciate that, at law, ensuring that an acceptable level of risk is achieved, involves ensuring that the risk is both 'within acceptable limits'; and 'as low as reasonably achievable'. Neither of these terms is defined in the MQSHA. The Dictionary to the MQSHA refers those seeking greater understanding of the section back to the section itself.[6] The term 'unacceptable level of risk' is defined only as being the opposite of an 'acceptable level of risk'. Subsequent sections, including s27, which describes how 'effective risk management' is achieved, do not address the fundamental lack of clarity in s26 itself.

From a statutory interpretation perspective, there are multiple problems with s26, and, correspondingly, with the use of 'acceptable level of risk' throughout the legislative framework.

In addition to the absence of any definition of key terms in s26, the relationship between the two requirements that a risk be 'within acceptable limits'; and 'as low as reasonably achievable', is unclear. Depending on the meaning allocated to both terms, it is difficult to envisage a situation, for example, where a risk would be 'as low as reasonably achievable'; but would not be 'within acceptable limits'. Section 26 is meant to articulate the safety and health standard that industry must achieve. In our view, it does not adequately do so.

Where legislation is unclear, Courts will, to the extent that this is possible, seek to interpret the meaning of the provisions in question. Relevantly, though there are a number of cases which shed light on particular provisions in Queensland's mining and quarrying, and coal, safety legislation, to date the High Court of Australia has not considered the meaning of, and application of, the concept of an 'acceptable level of risk'. Additionally, although reference to 'acceptable level of risk' has been made in judgments of the Industrial Court of Queensland, the Supreme Court of Queensland and the Federal Court of Australia, no detailed analysis of the concept has yet been undertaken by these Courts.[7] Were the High Court of Australia to be asked to consider the current approach to mining safety and health in Queensland based on 'acceptable level of risk', there is, in our view, the real possibility that the approach could be the subject of significant criticism.[8]

---

6 Schedule 2, MQSHA.

7 See for example *Dalliston v Taylor* [2015] ICQ 017; *Edwards v North Goonyella Coal Mines Pty Ltd* [2005] QSC. 242; *Grant v BHP Coal Pty Ltd* [2017] FCA 1374; *MacPherson v Rio Tinto Coal Australia Pty Ltd* [2005] QSC 120.

8 See for example, *Monis v The Queen* [2013] HCA 4; *Queensland v Congo* [2015] HCA 17; *Rowe v Electoral Commissioner* [2010] HCA 46; *Stanford v Stanford* [2012] HCA 52.

Given the centrality of the concept of 'acceptable level of risk', the assessment team asked interviewees for their views as to how they interpreted s26, whether they had previously experienced any issues regarding the clarity of the concept of 'acceptable level of risk', and whether or not they would prefer any particular changes be made in regard to this core provision.

Many interviewees indicated that they were strongly supportive of what they saw as the original intent behind s26, as articulated in the *Explanatory Notes for the Mining and Quarrying Safety and Health Bill 1999*, namely that the concept of 'acceptable level of risk' would drive an approach to continuous safety improvement. Some industry, and government, interviewees also expressed ongoing comfort with the current wording of the section, indicating that it provided an 'acceptable level of ambiguity'. However, for most of our interviewees, in their lived experience, s26 as it stands is insufficiently clear.

Interviewees from all backgrounds indicated that:

- They found it difficult to determine, with any confidence, whether or not a safety outcome met s26;
- They had experienced ongoing disputes about what standard was acceptable under s26;
- The interaction between s26(1)(a) and s26(1)(b) was inherently confusing, and they had questioned whether s26(1)(a) was actually redundant;
- The focus in s26(2) on 'likelihood' was out of step with current risk management practices;
- There was too little focus in the section, and throughout the legislative framework, on implementation of 'critical controls'.

Some of our interviewees had experience operating under the 'so far as is reasonably practicable' standard, and duty of care provisions in other jurisdictions, or in the non-mining sector. Those interviewees indicated that they strongly preferred this framework, on the basis that it was 'more clear', 'well understood', and 'has legal interpretation behind it'. In several cases, interviewees indicated that, in practice, the 'so far as is reasonably practicable' approach was the one they currently followed.

Interviewees differed as to whether they believed an attempt should be made to 'tidy up' s26 to make it less ambiguous, and more contemporary; or whether the concept of 'acceptable level of risk' should be replaced with the 'so far as is reasonably practicable approach' used elsewhere. Several expressed concern, that whatever alterations were contemplated, care would need to be taken to ensure that the underlying intent, of continuous mine safety improvement, was not jeopardised.

The assessment team believes that, in the light of the issues identified both through our own analysis, and by interviewees, some change needs to be made. We do not accept the position put to us by one interviewee, that arguments about the meaning of 'acceptable level of risk' are wholly, or essentially, 'mischievous'. Rather, in our view, the current wording of the core concept underpinning the entirety of the legislative framework, invites uncertainty,

and is at odds with fundamental legislative principles. Any person with a safety and health obligation arising under MQSHA must, under the rule of law, be able to understand that obligation so that compliance with the obligation is possible; and can be fairly enforced. We emphasise here, that we are not expressing any negative view about the nature and effectiveness of safety and health risk management in the mining and quarrying industry. Our focus is on the framework itself.

4.1.1 Recommendation

Within the bounds of our scope, the assessment team has considered two broad options available to address the issues raised by the lack of clarity regarding the term 'acceptable level of risk'.

Option A

The first option would be to replace provisions relating to 'acceptable level of risk' with the 'reasonably practicable' concept from the *Work Health and Safety Act 2011* (Qld) (WHSA). Part 2 of the WHSA sets out duties applying to all persons under the Act.

Section 17 of the WHSA is reproduced below:

Part 2 Health and safety duties

17 Management of risks

A duty imposed on a person to ensure health and safety requires the person—

(a) to eliminate risks to health and safety, so far as is reasonably practicable; and

(b) if it is not reasonably practicable to eliminate risks to health and safety, to minimise those risks so far as is reasonably practicable.

The WHSA then continues as follows:

Subdivision 2 What is reasonably practicable

18 What is reasonably practicable in ensuring health and safety

*In this Act, **reasonably practicable**, in relation to a duty to ensure health and safety, means that which is, or was at a particular time, reasonably able to be done in relation to ensuring health and safety, taking into account and weighing up all relevant matters including—*

(a) the likelihood of the hazard or the risk concerned occurring; and

(b) the degree of harm that might result from the hazard or the risk; and

(c) what the person concerned knows, or ought reasonably to know, about—

(i) the hazard or the risk; and

(ii) ways of eliminating or minimising the risk; and

(d) the availability and suitability of ways to eliminate or minimise the risk;

and

(e) after assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk.

In its entirety, Part 2 of the WHSA sets out clear principles to follow in determining whether a duty and subsequent obligation arise; and provides clear guidance as to the standard of care required. The wording of Part 2 mirrors the existing principles underpinning common law duty of care and breach of duty of care. Sections 17 and 18 of the WHSA also reflect the current position in the *Civil Liability Act 2003* (Qld) which is a statutory modification of the common law principles relating to standard of care.[9] Importantly, these concepts are well considered, and readily applied by Courts. The legislative frameworks applying to mining safety and health in other jurisdictions, while different in structure to the Queensland arrangements, also rely on the 'reasonably practicable' concept, and reflect the common law duty of care, and breach of duty of care, requirements. The concept of 'reasonably practicable' is also utilised in the *Electrical Safety Act 2002* (Qld). It is worth noting that the *Explanatory Notes for the Mining and Quarrying Safety and Health Bill 1999* indicated that an objective of the Bill was to introduce 'modern legislation' that adopts various basic principles including, *inter alia*, 'an emphasis on duty of care obligations'. Notwithstanding the Explanatory Notes, in our view the MQSHA does not adequately reflect those principles.[10]

Adoption of the concept of 'reasonably practicable' would strengthen the 'effectiveness' of the *Mining and Quarrying Safety and Health Act 1999* (Qld) by providing much needed clarity, and far greater certainty in relation to the operation and enforcement of the existing Act.

Adoption of 'reasonably practicable' would require legislative amendment of the MQSHA and corresponding changes to the *Mining and Quarrying Safety and Health Regulation 2017* (Qld), and Guidelines. We note, however, that s8(1) of the MQSHR already references the 'reasonably practicable' concept.

Option A is our preferred approach. We have recommended this approach also be applied to the coal mining safety and health legislative framework.

Option B

An alternate approach would be to retain the concept of 'acceptable level of risk', but to seek to clarify its meaning. A starting point would be to remove the, confusing, reference, at s26(1)(a) to 'within acceptable limits'.

The revised section 26(1) could read as follows:

Section 26 What is an acceptable level of risk

(1) For risk to a person from mining operations to be at an ***acceptable***

[9] Section 9, *Civil Liability Act 2003* (Qld).

[10] *Explanatory Notes to the Coal Mining Safety and Health Bill* (Qld) 1999, p. 1.

> ***level**, the operations must be carried out so that the level of risk from the operations is as low as reasonably achievable.*

There would also then need to be greater delineation of the term 'as low as reasonably achievable'.

This approach is, in our view, a poor alternative to Option A. It does not provide the level of clarity and certainty that would be accessible under Option B. 'As low as reasonably achievable' is not an existing common law concept. Defining it further is likely to be very challenging. The only other use of the term in (non-mining specific) Australian legislation is in the *Radiation Safety Act 1999* (Qld), where, once again, the term is not defined. Additionally, we are doubtful that the concerns addressed by many interviewees would be addressed by this approach.

Option B is not recommended.

4.2 Utility of the legislative framework for 'small miners'

During the course of our interviews, individuals from a wide variety of backgrounds questioned whether the existing legislative framework was appropriate for 'small miners', (generally, but not always, defined as operations with 4 or fewer workers onsite).

We were advised, variously, that:

- Large portions of the MQSHA, and MQSHR were 'irrelevant' to small miners, making it difficult for those operators to readily ascertain what, exactly, did apply to them;
- The language used in the legislative framework was unhelpfully complex;
- The so-called 'risk based approach' throughout the MQSHA, and MQSHR was not appropriate for 'small miners', particularly those who had come from non-mining backgrounds (examples of former bee keepers, and IT specialists working quarries and gem mines were provided), and might benefit from more clear prescription.

Suggestions were made that either separate legislation should be enacted for 'small miners'; that a distinct 'small mining' section should be set out in the Act or Regulation; or that there be a 'small mining' guideline be introduced to serve, in effect, as 'de facto' legislation for those operators.

By contrast, we also received feedback from some interviewees who were concerned to ensure that 'small miners' not be held to any lesser standard of safety and health performance.

The assessment team has reviewed the legislative framework in the light of the concerns raised. We have some sympathy for the view that it may be difficult for 'small miners' to identify their obligations under the framework. While some types of 'small miners' are explicitly excluded from the application of some sections, (for example s38(3) MQSHA clearly indicates that provisions governing the development and implementation of safety and health management systems (SHMSs), 'do not apply to an operator of a mine that is an opal or gem mine, if no more than 4 workers are employed at the mine'); the applicability of, for example, sections 36 and 36A MQSHR, (which deal with evacuation, and escapeways

from underground), to 'small miners' is less obvious. The assessment team notes that some interviewees expressed strong appreciation of the work done by individual inspectors to assist 'small miners' to interpret the Act and Regulation. Nevertheless, the potential for lack of clarity and misinterpretation remains.

We are mindful of the reality that fatalities and serious injuries do occur at 'small mines'. In that context, ensuring that the safety and health obligations of 'small miners' are clearly conveyed is an important issue. The assessment team has considered each of the three options for change raised by interviewees. We have done so under the proviso that, as some interviewees requested, any option should ensure that 'small miners' are not held to a lower level of safety and health performance than other miners.

On balance, we would not favour the construction of separate safety and health legislation for 'small miners'. Many of the MQSHA and MQSHR provisions do apply to these operations, as well as to their larger counterparts. It seems to us that the development of separate 'small mining' safety and health legislation would only be justifiable if this legislation was very substantially different in content and scope to the existing framework.

Nor would we support the suggestion that a 'small miners' guideline be developed if that guideline was viewed as some form of substitute for the MQSHA and MQSHR. As s62 MQSHA makes clear, a guideline is made 'to state ways of achieving an acceptable level of risk'. As per s34(3) MQSHA, it is possible for an obligation holder to choose not to follow a guideline under certain circumstances (discussed subsequently in this Report). Guidelines do not have the function, or status, of a replacement law.

However, the assessment team does see potential merit in inclusion of new Parts in the MQSHA and MQSHR that specifically apply to 'small miners'. This approach would allow 'small miner' obligations to be both clarified and consolidated. Were this approach to be considered further, care would need to be taken to define the term 'small miner', in order to be clear about the scope of the Part. We note, in passing, that the existing definition of 'small scale mining activity' in the *Environmental Protection Act 1994* (Qld) is unlikely to be helpful in this instance given that it, understandably, focuses on degree of environmental impact.

A further alternative would be for additional guidance material to be made available to 'small miners'. While this may well be helpful, it would not, of itself, address the fundamental question of the clarity of the legislative framework.

The question of whether 'small miners' should be subject to a more prescriptive set of requirements is a question of policy outside of our scope.

4.2.1 Recommendation

The assessment team recommends that MSHAC give further consideration to the inclusion of specific 'small miner' Parts in the MQSHA, and MQSHR.

We further recommend that MSHAC consider whether it is appropriate or otherwise to provide greater prescription in the legislative framework for 'small miners'.

4.3 Safety and Health Management System requirements

When considering the *Coal Mining Safety and Health Act 1999* (Qld), (CMSHA), the Supreme Court of Queensland has previously observed that 'the safety and health management system is of central importance in both the operation and interpretation of the Act'.[11] This observation is also pertinent to the MQSHA and MQSHR.

4.3.1 Accountability for SHMS development

It is of concern, therefore, that during the course of our interviews, individuals from all backgrounds questioned whether accountability for the SHMS was appropriately apportioned in the MQSHA, with many, (though not all), interviewees observing that the existing provisions place unreasonable obligations on SSEs, given the reality of how SHMSs are developed.

At present, s38(1) of the MQSHA stipulates that operators have the following obligations in relation to the SHMS:

38 Obligations of operators

(*d*) *to ensure the site senior executive for the mine-*
  (*i*) *develops and implements a safety and health management system for the mine;*
(*e*) *to audit and review the effectiveness and implementation of the safety and health management system to ensure the risk to persons from operations is at an acceptable level;*
(*f*) *to provide adequate resources to ensure the effectiveness and implementation of the safety and health management system.*

Section 39 of the MQSHA stipulates that an SSE has a range of obligations in relation to the SHMS. Of greatest concern was the wording of s39(1)(c), as set out below:

39 Obligations of site senior executive for mine

(*1*)(*c*) *to develop and implement a safety and health management system for all persons at the mine, including contractors and service providers;*

The assessment team was repeatedly advised, by interviewees of all backgrounds, that in many cases operators developed SHMSs which were then 'gifted' to SSEs. Our interviewees indicated that SSEs then sometimes had the opportunity to tailor the SHMS, but, in a number of specific instances cited, there had been no scope to do so. Interviewees questioned how, in those circumstances, it could be appropriate to hold SSEs accountable for the development of an SHMS. Having said this, we did talk with interviewees whose approach to SHMS development more accurately reflected the apportionment of obligations under the MQSHA. (It should be noted that while in our previous assessment of the coal mining safety and health framework some concerns were raised about the balance of

[11] *CFMEU v Oaky Creek Coal* [2003] QSC 33 at [8].

obligations between coal mine operators and SSEs; there was no strong challenge to the notion that 'development' of the SHMS should take place onsite).

Some interviewees suggested that the MQSHA should be amended to provide that the development of an SHMS should be a joint obligation for both the operator and the SSE. Others argued that the obligation to develop an SHMS should rest solely with the operator. Changes were sought both on the basis that this would better reflect actual circumstances in the industry; and, at least for some interviewees, on the basis that it was more appropriate for the entity with control of safety resources (ie the operator), to have the obligation for development of the safety and health management system.

The assessment team notes that it is the case that there are numerous examples of other Australian legislative regimes where the accountability for development of the equivalent of an SHMS rests with the operator.[12] This is also the approach contemplated in *ISO 45001 Occupational Health and Safety Management Systems*.

We are of the view that the question of who should have accountability, or primary accountability for the development of the SHMS is a matter of policy. The MQSHA itself is clear. However, given the importance of ensuring that obligations are not impossible to implement; we would strongly support MSHAC giving further consideration to the issues raised. It may be appropriate, given the extent of the common wording used in the MQSHA and the CMSHA, for MSHAC to work in conjunction with the Coal Mining Safety and Health Advisory Committee (CMSHAC) in this regard.

Some interviewees also noted that even if it were to be accepted that SSEs should retain accountability for development of the SHMS, in practical terms they were unlikely to ever prepare this document themselves. It was suggested that the wording of s39(1)(c) should be amended to require SSEs to 'ensure' the development of the SHMS. Similar comments were made during the coal assessment. In that review we supported the change proposed.

In addition, some interviewees questioned whether s39(1)(c) should be adjusted to recognise that, in circumstances where a new SSE was appointed to an established site, it would be more accurate and appropriate to apportion an obligation on that SSE to 'review' the SHMS, rather than to 'develop it'. A SHMS should already be in existence.

4.3.2 SHMS Scope

Our interviewees were divided on whether the actual scope of what falls within an SHMS under the Act is clear.

Section 55(2) MQSHA currently provides as follows:

55 Safety and health management system

(2) The safety and health management system must be a single, auditable documented system that-

[12] See for example the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014* (NSW); and the *Mines Work Health and Safety (Supplementary Requirements) Act 2012* (Tas.).

(a) forms part of an overall management system; and
(b) includes organisational structure, planning activities, responsibilities, practices, procedures and resources for developing, implementing, maintaining and reviewing a safety and health policy.

While our interviewees commonly saw s55(2)(b) as very broad in nature, some indicated that this provision was nevertheless relatively clear, and likely as definitive as it could be. Industry interviewees holding this view indicated that they relied on internal company instruction, guidance material, and/or inspectorial advice to delineate what did, and what did not, fall within the boundaries of an SHMS.

Other interviewees described disputes between companies and the inspectorate over the scope of the SHMS required under the Act; and argued that an attempt should be made to clarify s55(2)(b). It was suggested that such general terms as 'practices' and 'procedures' could be replaced with a more specific indication of what was required. Once again, similar comments were made during the coal assessment. In that review we indicated that we did see value in attempting to delineate, more distinctly, the scope of an SHMS.

One interviewee also queried why s55(2)(b) focussed on aspects for 'developing, implementing, maintaining and reviewing a safety and health policy'. It was argued that, in reality, while a site's SHMS should focus on implementing a safety and health policy, it was not the appropriate vehicle for developing, maintaining or reviewing that policy. The assessment team can see the merit in the point raised.

4.3.3 Recommendations

Given the fundamental importance of the SHMS concept to the effectiveness of the mining and quarrying safety and health legislative framework, the assessment team recommends that MSHAC give further consideration to:

- the question of who should have accountability, or primary accountability for the development of the SHMS (other changes can be made subsequently); and
- whether the required scope of an SHMS under the MQSHA can be more clearly delineated.

4.4 (Principal) Hazard Management Plans

There is no requirement under the MQSHA or MQSHR for mines and quarries to develop hazard management plans.[13] This is in contrast to the situation under the Queensland coal mining safety and health legislative framework which, at present, requires the preparation of principal hazard management plans (PHMPs); with specific PHMPs stipulated for underground coal mines.

During the course of our interviews, individuals from a variety of backgrounds proposed that there should be explicit obligations on non-coal mines and quarries to identify those hazards that had the potential to cause multiple fatalities, either at one time, or successively over

[13] Section 35 MQSHR does require the development of an emergency response plan.

time; and to prepare a management plan to control those hazards. (Interestingly, *the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014* (NSW), applies the term 'principal hazard' to both types of circumstance).[14] Those interviewees saw the absence of such a requirement as placing the non-coal mining sector at a safety disadvantage. It was noted, for example, that roof falls, and vehicle interactions had the potential to result in multiple deaths in both the coal, and the non-coal sectors, but only in the former sector was there a specific accountability for in-depth assessment and management of these hazards.

The assessment team believes that it is incongruous to require principal hazard management planning in the coal sector but not to do so in the non-coal mining sectors.

We note that, under the NSW regime, mining operations of all types are required to identify principal hazards, conduct a 'comprehensive and systematic investigation and analysis of all aspects of risk to health and safety associated with the principal hazard', and to prepare principal hazard management plans.[15] Mines are also required to prepare certain principal control plans (PCPs).[16] PCPs are a way of managing the risks posed by 'normal' activities such as the use of electricity, and explosives.

The assessment team has previously recommended that CMSHAC give further consideration to updating principal hazard management requirements in the CMSHA and CMSHR. We have suggested that CMSHAC may wish to evaluate the applicability of the NSW approach to the Queensland coal industry. In our view, it would also be appropriate for MSHAC to do so.

4.4.1 Recommendations

That MSHAC give positive consideration to suggestions that the MQSHA and MQSHR should be amended to incorporate requirements for principal hazard management planning; and that MSHAC evaluate the applicability of NSW regulatory requirements regarding PHMPs and PCPs to the Queensland mining and quarrying sectors.

4.5 Balance Between Framework Components

The assessment team were specifically asked to consider the current balance between the MQSHA, the MQSHR, and the Guidelines.

We have approached this aspect of our scope mindful of the following principles:

1. In considering the difference between an Act of Parliament and a Regulation made under the authority of that Act, a distinction is commonly made between 'legislative activity' and 'executive activity'. Whereas 'legislative activity' involves the creation of new rules of general application, 'executive activity' involves the application of those general rules to particular circumstances. An Act of Parliament should, therefore, determine the content of the law, and a Regulation made under that Act of

---

14 See s5.

15 See ss 23-25 *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014* (NSW).

16 See particularly s26.

Parliament should apply the law to particular circumstances.[17]

2. Mandated requirements should not be placed in instruments, such as Guidelines, which are designed to be optional, and have uncertain status at law.[18]

The assessment team did receive some interviewee feedback to the effect that the MQSHA was 'too administrative'. In particular, *Part 7, Site safety and health representatives and committees*, was cited as being too detailed, and complex, for inclusion in the Act itself. The assessment team notes that, as per s7 of the MQSHA, SSHRs and committees are meant to play important roles in achieving the objects of the Act. It would be inappropriate, therefore, for the entirety of Part 7 to be removed from the MQSHA. However, we would agree that this Part, along with others including *Part 4, Provisions about the operation of mines*; *Part 6, Industry consultative arrangements*; *Part 10, Board of examiners*, *Part 16, General*, and *Part 17, Administration*; contain considerable material of a more 'operational' nature. As previously observed in the context of the coal review, while it is difficult to be definitive about the impact of the inclusion of this material in the Act, it seems reasonable to infer that the current approach heightens the possibility that industry participants may find it difficult to navigate, digest, and comprehend requirements under the MQSHA.

At present there are three Guidelines applying to the mineral mines and quarrying sectors: QGL01: *Guideline for Management of Naturally Occurring Radioactive Material (NORM) in Metalliferous Mines*; QGL02: *Guideline for Management of Respirable Crystalline Silica in Queensland Mineral Mines and Quarries*; and QGL03: *Guideline for Hazardous Chemicals*.

During our interviews, some interviewees from varying backgrounds argued that parts of each Guideline should be reassigned to the MQSHR on the basis that those parts should be, and were being treated as, mandatory. Unfortunately, at the time of writing we had not been provided with any specific guidance as to which components interviewees were referring to. In any case, decisions as to which components of the Guidelines should, or shouldn't, be mandatory are decisions for government, ideally following consultation with industry. Our only point here is to reiterate that Guidelines are not an appropriate location for mandatory requirements.

4.5.1 Recommendation

Given our view that the MQSHA is presently too detailed, we believe that a redistribution of 'operational' provisions from the Act to the MQSHR should be undertaken. Such a process would best be conducted under MSHAC auspices; and utilising legal expertise to ensure that unintended consequences are not introduced.

With respect to the Guidelines, we suggest that the inspectorate be tasked with identifying any aspects seen as mandatory, with a view to those aspects being reallocated to the

---

17 See for example; Russell Hinchy, *The Australian Legal System: History, Institutions and Method* (Thomson Reuters, 2nd edition, 2015) pp. 393-395; Russell Hinchy *Context and Method in Australian Law* (Thomson Reuters, 2019) pp. 256-258; *RC Capital Radio Ltd v Australian Broadcasting Authority* [2001] 113 FCR 185, [40] - [47].

18 *Comcare v Banerji* [2019] HCA 23; *Norbis v Norbis* (1986) 161 CLR 513.

MQSHR.

5 MQSHA

In addition to the points made in regard to the legislative framework as a whole, there are a number of matters specific to the content of the MQSHA, (though with implications elsewhere), which need to be addressed. For ease of reference, these matters have been separated into issues related to the clarity of the existing Act; and gaps in the legislation.

5.1 Clarity

Issues regarding the clarity of the MQSHA are discussed in the order in which the relevant provisions appear in the Act.

5.1.1 Section 5A, Relationship with Rail Safety National Law (Queensland)

This provision purports to clarify the circumstances in which the MQSHA and the Rail Safety National Law apply. It reads, in part, as follows:

5A Relationship with Rail Safety National Law (Queensland)

(1) This section applies if-

(a) this Act, in the absence of this section, would apply to a mining railway; and

(b) the Rail Safety National Law (Queensland) also applies to the mining railway.

(2) This Act does not apply to the mining railway to the extent that the Rail Safety National Law (Queensland) applies.

A section 5A, with the same wording, is also included in the CMSHA. During our review of the coal mining safety and health framework, interviewees pointed out that the provision had the potential to create confusion as to which Act applied in the event of an incident. In that review, we recommended that s5A CMSHA be redrafted in plain English.

During our interviews for this assessment we were given a stark practical example of the difficulties posed by s5A MQSHA. We were informed that after a recent incident, confusion over which Act applied had lasted for a number of days, posing extra difficulties for both the site, and the inspectorate, at a time when the focus should appropriately be on responding to the incident itself. It is in the interests of all stakeholders that this situation is not repeated.

5.1.1.1 Recommendation

Section 5A should be redrafted to state, in plain English, when the respective Acts apply.

5.1.2 Section 9, Meaning of mine

Sections 9, 10 and 11, which deal with the 'meaning of *mine*', 'meaning of *operations*', and 'meaning of *quarry*' respectively; are meant to provide clarity as to the types of places, and activities, covered by the MQSHA, MQSHR, and Guidelines. It is important, therefore, that, so far as it is possible to do so, any ambiguity in these sections is resolved.

Our interviewees indicated that several aspects of s9 were unclear. For ease of reference the relevant sub-sections of s9 are set out below:

9 Meaning of mine

(1) A mine is any of the following places –

(a) a place where operations are carried on, continuously or from time to time, within the boundaries of land the subject of a mining tenure;

(b) a place where operations are carried on, continuously or from time to time, on land adjoining, adjacent to, or contiguous with, the boundaries of the land the subject of a mining tenure…

(d) a place that was a mine while works are done to secure it after its abandonment; '

(e) a place where tourism, education or research related to mining happens that is declared under a regulation to be a mine;

Interviewees from varying backgrounds expressed the view that the scope of the terms 'adjoining, adjacent to, or contiguous with' in s9(1)(b) needed to be clarified. We were given several examples of circumstances where both the inspectorate and industry had struggled to determine whether or not operations were 'adjoining' or 'contiguous with' the land which was the subject of a mining tenure. The terms are not defined in the Dictionary to the MQSHA.

Once again, similar issues have previously been raised in regard to the meaning of 'coal mine' in the context of s9 CMSHA. We would note, as we have done in our review of the coal mining safety and health legislative framework, that when examining this provision, the Supreme Court of Queensland has previously utilised Macquarie Dictionary definitions of these terms.[19] This approach is in accord with that preferred by the High Court of Australia when interpreting terms in common usage. We would, however, observe in passing that the inclusion of 'contiguous with' may be unnecessary. The words 'adjoining' and 'adjacent to' would seem adequate for the purposes of this section.

If the approach taken by the Supreme Court of Queensland is not preferred, then it would seem one way to give greater precision to s9(1)(b) MQSHA would be to introduce some form of measured distance for each term. For example, in *Smyth v State of Qld & Ors*, Justice Wilson observed that an accident site one kilometre from the land the subject of one mining lease was not 'adjacent to or contiguous with' that lease.[20] Discussion could be had as to how close a place needed to be to fit within this terminology. The assessment team is not in a position to provide advice on the appropriate distances. We do note, however, that introduction of measures of distance will always have the potential consequence that some situations will fall just outside of the distances specified.

One of the examples provided to the assessment team concerned a situation where mineral extraction had ceased on a mining lease, but where material from a satellite pit was being

19 *Smyth v State of Qld & Ors* [2005] QSC 175.

20 *Smyth v State of Qld & Ors* [2005] QSC 175 at [22].

trucked onto the lease for processing. It was noted that there had been debate over whether in these circumstances the original site could still be determined to be a 'mine' under s9. It was suggested that this should be explicitly clarified in s9. Whilst stressing that the assessment team is not providing legal advice to any party in this Report, we are of the view that the situation described is already adequately catered for in the MQSHA. Section 10(1)(a) provides that 'operations' include 'processing of minerals'. As indicated, s9(1)(a) deems a place where 'operations' are carried out within a mining tenure to be a 'mine'.

Several interviewees also indicated that the meaning of the words 'secure' and 'abandonment' in s9(1)(d) had been contested; and required clarification. Once again, these terms are not defined in the Act. In this instance the assessment team believes that reliance on Macquarie Dictionary (or other general dictionary) definitions is not sufficient. For the purposes of the Act, both 'secure' and 'abandonment' will have a specific mining industry context. We would favour definition of both terms within the MQSHA. In that regard, we note that s35 of *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014* (NSW) does contain an explanation of what is meant by the term 'secure'. There may be value in MSHAC considering whether a similar definition should be included in the MQSHA.

Interviewees have also raised the question of whether a site 'under care and maintenance' can be considered to be a 'mine' under s9 MQSHA. The assessment team believes that, given that neither s9, nor s10, *Meaning of operations,* explicitly deal with this scenario, an amendment may be required. (We note that it may be intended that 'care and maintenance' is encompassed under s10(1)(c). However, we would not see the current wording as adequate in this regard). It is suggested that 'under care and maintenance' be added to those activities included within 'operations' under s10.

The assessment team was also advised that while only one place had been declared as a mine under s9(1)(e); there were other sites that needed to be. Given that this is a matter related to the implementation of the legislation, rather than its adequacy, we make no further comment in this regard.

5.1.2.1 Recommendations

In our view, a decision on whether or not to attach precise measurement to s9(1)(b) is a matter for MSHAC to consider. We do not see this as an instance where the language of the existing provision is fundamentally flawed. We do, however, suggest that the words 'contiguous with' be removed from s9(1)(b) to aid clarity.

The assessment team does recommend that definitions of the terms 'secure' and 'abandonment' be included in the Dictionary to the MQSHA. Given that these terms are also used in the coal mining safety and health legislative framework, consideration should also be given to inclusion of those definitions in that framework.

We further recommend that s10 be amended to explicitly provide that sites under 'care and maintenance' are 'operations' for the purposes of the MQSHA.

5.1.3 Section 10, Meaning of operations

In addition to the question raised in regard to 'care and maintenance', interviewees sought a number of changes to s10.

It was suggested that the section should be refocussed to refer to 'mining activities' rather than 'operations' to avoid confusing 'the operation', with 'operations'. In this regard we note that the CMSHA references 'on-site activities', rather than 'operations'.

Concerns were also raised in regard to the terminology used in s10(1). For ease of reference, s10(1) is set out in part below:

10 Meaning of *operations*

(1) Operations are activities carried on principally for, or in connection with, exploring for, winning, or winning and treating, minerals or hard rock…

Interviewees from varying backgrounds noted that at present s10(1) describes 'operations' in terms of 'minerals' and 'hard rock'. Interviewees questioned why the adjective 'hard' was used; and suggested that this should be removed. The assessment team notes that the coverage of the MQSHA is a matter of policy. We are not in a position to advise on whether or not the change proposed is appropriate.

Section 10(2) sets out activities that are not 'operations'. A number of interviewees noted that there is no exemption for the installation, operation and maintenance of telecommunications and energy facilities by external providers such as Telstra, NBN and Energex. The assessment team was provided with a copy of Mines Safety Bulletin no. 160, issued by the then Chief Inspector of Mines, and the then Chief Inspector of Coal Mines in May 2017.[21] The Bulletin advised mines that 'the installation, operation and maintenance of Essential Service Telstra Facilities (ESTF) is not part of a mine's operations' and that 'essentially an SSE is not responsible or accountable for activities conducted on ESTF by Telstra technicians'. The Bulletin went on to specify an SSE's accountabilities tor the safe travel of Telstra technicians 'between the entry point of the mine or quarry and where the ESTF are located'; for ensuring that the 'risk to them from being harmed by mining or quarrying activities is at acceptable level'; and for provision of an 'appropriate' level of induction. Interviewees have suggested that the approach taken in Mines Safety Bulletin no. 160 needs to be reflected in the MQSHA itself, either by exempting telecommunications and energy facilities from the scope of s9, *Meaning of mine*, or from 'operations' under s10.

Some interviewees also suggested that 'fossicking', which is listed as one of the exemptions from the term 'operations', needs to be defined in the MQSHA. It was argued that, in practice, 'fossicking' was a term applied to a variety of activities. The assessment team notes that while 'fossicking' is listed in the Dictionary to the Act, no substantive definition is provided. Instead the reader is advised that 'fossick' 'has the meaning given in the *Fossicking Act 1994*'.

[21] Department of Natural Resources, Mines and Energy, *Mines Safety Bulletin no. 160*, 3 May 2017, Version 1.

The assessment team was also advised that there was an increasing issue with 'mixed' operations, where holders of mining tenures were carrying out both mining and non-mining activities (for example timber getting, and wind generation) on the tenure. It was noted that the existing list of exemptions from the term 'operations' in s10(2) did not cover all of these mixed activities. The assessment team believes that it is important to have regard to s10(1), before considering what should be delineated as not being 'operations' under s10(2). In our view, the only activities that need to be listed in s10(2) are those which, otherwise, might potentially be caught up in the overarching definition of operations in s10(1).

5.1.3.1 Recommendations

The assessment team recommends that:

- MSHAC give positive consideration to refocussing s10 on 'mining activities' rather than operations
- MSHAC determine whether the term 'hard rock' should be replaced with 'rock'
- Section 10 be amended to make clear that the construction and installation of telecommunications and electricity services by external providers does not fit within the meaning of 'operations'
- An explicit definition of 'fossicking' be included in the MQSHA
- The only activities that need to be listed in s10(2) are those which, otherwise, might potentially be caught up in the overarching definition of operations in s10(1).

5.1.4 Section 11, Meaning of quarry

The assessment team were advised that there had been ongoing debates about which sites fell within the meaning of 'quarry'. In some cases, these debates related to varying interpretations of the exemption provided in s11(2). For ease of reference s11(2) is reproduced in part below:

11 Meaning of quarry

(2) However, a place on land where operations are carried on, continuously or from time to time, to produce construction or road building material is not a quarry if the operations are carried on-

(a) to produce construction or road building material substantially for use at a construction site at the place, or that adjoins, is adjacent to, or contiguous with, the place; or

(c) to extract, but not crush, river sand or gravel;

It was noted that the term 'substantially' was open to multiple interpretations. In the assessment team's view, however, there is little to be gained by attempting to further define this term which is in common usage and is unlikely to have a different quarrying related meaning.

In addition, interviewees observed that it was not clear whether s11(2)(c) exempted all operations that extracted all gravel from the meaning of 'quarry'; or only those operations which extracted 'river gravel'. While the assessment team believes that, arguably, the word 'gravel' should be interpreted in the context of 'river sand', and, as such, be considered only to refer to 'river gravel'; we nevertheless agree it would be appropriate to amend s11(2)(c) to

remove any potential ambiguity.

Interviewees also had differing views about the types of operation that should be included within the meaning of quarry for the purposes of the MQSHA. For some interviewees, 'anything that looks like a quarry and uses explosives should be under the Act'. For others, any operation where crushing is involved should be unambiguously designated as a 'quarry'. Industry interviewees noted that at times they had received differing advice from individual inspectors as to whether or not an operation constituted a 'quarry'. Having said this, the assessment team wishes to emphasise that, across the board, our interviewees argued that the mines inspectorate were far better placed to regulate quarries than their non-mining counterparts given the specialist nature of the safety and health issues that can arise.

5.1.4.1 Recommendations

The assessment team recommends that s11(2)(c) be amended to clarify whether it is intended to refer to 'river gravel', or all gravel. If the intention is that only 'river gravel' falls within s11(2)(c), the subsection should be amended to read as follows:

> *(c) to extract, but not crush, river sand or river gravel; or*

In the unlikely event that it is intended that 'all gravel' falls within the scope of s11(2)(c), the subsection should be amended to read as follows:

> *(c) to extract, but not crush-*
> *(i) river sand;*
> *(ii) gravel of any type; or*

The assessment team also recommends that MSHAC give consideration to whether s11 currently captures all those sites that should be included within the meaning of the term 'quarry' for the purposes of the MQSHA.

5.1.5 Section 15, Meaning of standard work instruction

Some interviewees expressed confusion as to why the MQSHA refers to both 'standard work instructions', and procedures; and as to why the terminology used in this legislative framework is different to the 'standard operating procedure' approach taken in the CMSHA and CMSHR. The assessment team is not aware of the rationale for these differences.

Interviewees who worked, or who had worked, across both the coal and non-coal sectors argued that there should be standardisation of terminology in both legislative frameworks.

5.1.5.1 Recommendation

That MSHAC consider whether there should be any standardisation of terminology as suggested.

5.1.6 Section 22, Meaning of site senior executive

Section 22 currently reads, in part, as follows:

22 Meaning of site senior executive

(1) The site senior executive for a mine is the most senior officer employed or otherwise engaged by the operator for the mine who-

(a) is located at or near the mine; and

(b) has responsibility for the mine.

The assessment team has been advised that the requirement that the SSE must be 'the most senior officer' poses practical difficulties for large operations where there may be multiple persons at the same level. We were given the example of a circumstance where an individual offsite, with apparently less knowledge of the site than four senior people onsite, could be appointed as SSE in order to meet the 'most senior officer' proviso. We were advised that the wording of s22 was now out of step with the reality of how larger companies structured their management teams.

Section 22 MQSHA mirrors the wording of s25 CMSHA. During our review of the coal mining safety and health legislative framework, a further issue was raised in relation to the meaning of SSE. Noting that SSEs were persons 'employed or otherwise engaged by the coal mine operator'; doubts were raised as to the status of contractor SSEs whose companies, rather than the SSE him or herself, had been engaged by operators. The assessment team believes that this may also be a potential issue for the mining and quarrying sectors.

5.1.6.1 Recommendation

The assessment team notes that any move away from a requirement that the SSE be 'the most senior officer' would require a policy change. That being the case, we suggest that MSHAC, in conjunction with CMSHAC, discuss the issue raised.

In the interests of removing the potential for confusion, the assessment team recommends that s22(1) be amended to specifically deal with the appointment of contractor SSEs.

5.1.7 Section 23, Meaning of supervisor

For ease of reference, s23 MQSHA is set out below:

23 Meaning of supervisor

A supervisor at mine is a worker who is authorised by the site senior executive to give directions to other workers.

During interviews we did receive some feedback that s23 MQSHA was 'confusing', however no further detail was provided.

We do, however, note that during our review of the coal mining safety and health legislative framework, it was suggested that s26 CMSHA, which sets out the meaning of 'supervisor'

under that Act, should be amended to utilise the term 'appointed', rather than the term 'authorised'. Coal interviewees argued that this would more closely reflect the intention that 'supervisors' are those specifically appointed by the SSE to be supervisors.[22] We have recommended that this change be made in the CMSHA, and would suggest the same alteration to the wording of s23 MQSHA.

The issue of supervisor obligations is dealt with elsewhere.

5.1.7.1 Recommendation

The assessment team recommends that s23 be amended to replace the word 'authorised' with the word 'appointed'.

5.1.8 Section 34, How obligation can be discharged if regulation or guideline made

Section 34(3) currently provides as follows:

34 How obligation can be discharged if regulation or guideline made
(3) Subject to subsections (1) and (2), if a guideline states a way or ways of achieving an acceptable level of risk, a person discharges the person's safety and health obligation in relation to the risk only by-
(a) adopting and following a stated way; or
(b) adopting and following another way that achieves a level of risk that is equal to or better than the acceptable level.

Section 34(3) MQSHA, mirrors s37(3) CMSHA, (with the exception that the latter Act references Recognised Standards, rather than Guidelines). During our review of the coal mining safety and health legislative framework, interviewees from all backgrounds expressed concern at the absence of any guidance as to the methodology that could or should be used to demonstrate and determine that 'another way' 'achieves a level of risk that is equal to or better than the acceptable level'. Interviewees also indicated that it was unclear who was responsible for making the judgement that 'another way' was adequate. In our Coal Report the assessment team noted that, in the context of the apportionment of obligations under the Act, the logical options in this regard would seem to be 'the SSE' or 'an inspector'. We argued that, on balance, given that Recognised Standards are not meant to stifle sites' adoption of alternative innovative processes, we would support the SSE having the role of determining whether or not 'another way' meets the requirements of the Act. We recommended both that s37 CMSHA be amended to clearly stipulate who is responsible for determining that 'another way' 'achieves a level of risk that is equal to or better than the acceptable level'; and that CMSHAC give positive consideration to SSEs having that accountability.

The assessment team believes that the question of who determines that 'another way' under s34(3)(b) MQSHA is adequate; should also be clarified.

[22] See the Explanatory Notes to the *Natural Resources and Mines Legislation Amendment Bill*.

5.1.8.1 Recommendation

That s34 MQSHA be amended to clearly stipulate who is responsible for determining that 'another way' 'achieves a level for risk that is equal to or better than the acceptable level; and that MSHAC give consideration to the appropriateness of allocating this accountability to SSEs.

5.1.9 Section 35, How obligations can be discharged if no regulation or guideline made

At present s35 (3) reads, in part, as follows:

35 How obligations can be discharged*…*

(3) …'the person discharges the person's safety and health obligation in relation to the risk only if the person takes reasonable precautions, and exercises proper diligence, to ensure the obligation is discharged.'

Once again, a similar provision is included in the CMSHA.[23] In our review of the coal mining safety and health legislative framework, in the light of issues raised by interviewees, we recommended replacement of the reference to 'proper diligence' with the more generally understood 'due diligence'. We also supported inclusion of a definition of the term 'due diligence' in the Dictionary to the CMSHA. It is worth noting that 'due diligence' is the term utilised in s44A of the MQSHA which deals with the obligation of officers of corporations.

5.1.9.1 Recommendation

Consistent with our recommendations in regard to the CMSHA, the assessment team recommends that the term 'proper diligence' in s35 MQSHA be replaced with 'due diligence'.

We further recommend that a definition of the term 'due diligence' be included in the Dictionary to the MQSHA.

5.1.10 Section 36, Obligations of persons generally

Section 36(2)(f) reads as follows:

36 Obligations of persons generally

(2) A worker or other person at a mine has the following additional obligations at the mine-

(f) not to do anything wilfully or recklessly that might adversely affect the safety and health of someone else at the mine.

A similar provision is included in the CMHSA at s39. In our review of the coal mining safety and health legislative framework we have recommended that the terms 'wilful' and 'reckless' be defined in the context of the Act. We see this as particularly important given the penalties that may be applied for wilful or reckless behaviour.

[23] See s38.

Relevantly, the WHSA describes 'reckless conduct' as a 'Category 1' offence. The *Explanatory Notes to the Workplace Health and Safety Bill 2011* (Qld), indicate that Category 1 offences involve reckless conduct (i.e. relates to a pattern of conduct/behaviour overtime which could include an omission) that exposes an individual to a risk of death or serious injury or serious illness without reasonable excuse. The WHSA itself provides as follows:

31 Reckless conduct—category 1

(1) A person commits a category 1 offence if—

(a) the person has a health and safety duty; and

(b) the person, without reasonable excuse, engages in conduct that exposes an individual to whom that duty is owed to a risk of death or serious injury or illness; and

(c) the person is reckless as to the risk to an individual of death or serious injury or illness.

We see value in drawing from the WHSA approach, to clarify the scope of s36(2)(f) MQSHA, (as well as s39(2)(f) CMSHA).

5.1.10.1 Recommendation

The assessment team recommends that s36(2)(f) be amended to read as follows:

36 Obligations of persons generally

(2) A worker or other person at a mine has the following additional obligations at the mine…

(f) not to engage, without reasonable excuse, in wilful or reckless conduct that might adversely affect the safety and health of someone else at the mine.

Examples:

1. *Conduct is "wilful" where there is an intention to engage in conduct that might adversely affect the safety and health of someone else at the mine.*

2. *Conduct is "reckless" where there is reckless indifference as to the risk that the conduct might adversely affect the safety and health of someone else at the mine.*

5.1.11 Section 37, Obligations of holders

The assessment team received some feedback that the term 'holder' needed to be defined. We note, however, that a definition of 'holder' is already included in the Dictionary to the MQSHA. As that definition seems adequate, we make no further recommendation in this Report.

5.1.12 Section 38, Obligations of operators; and Section 39, Obligations of site senior executive for mine

The question of the operator, and the SSE's, accountabilities for development of the SHMS has been dealt with previously in this Report.

Some interviewees also expressed concern that ss 38 and 39 MQSHA currently placed disproportionate accountability on the SSE. It was suggested, for example, that operators should have specific obligations regarding the appointment of contractors and service providers given that, in certain cases, major contractors and service providers were hired by the operator rather than the SSE. Other interviewees indicated that rather than having, at s38(1)(e), an obligation to 'audit and review the effectiveness and implementation' of the SHMS; operators should be required to 'ensure' effectiveness and implementation. Interviewees argued that current wording of s38(1)(e) allowed operators to maintain a distance from the adequacy or otherwise of safety and health onsite.

A further issue raised by interviewees from varied backgrounds was the concern that senior individuals within companies who were located offsite – such as Technical Department Heads - were increasingly influencing approaches onsite, without having any clear obligations ascribed to them under the MQSHA. The assessment team notes that a similar issue was raised during the coal review. In that case, we recommended that s41 CMSHA, dealing with the obligations of coal mine operators, be amended to require the operator to ensure that no direction is given to an SSE by other representatives of the holder or coal mine operator that is inconsistent with the SSE's obligations under the Act.

An alternative option would be to attempt to specify, in the MQSHA, the obligations applying to offsite company representatives. On balance, given the potential difficulties involved in crafting an obligations section that would encompass the array of potential offsite 'influencers', we would not favour this option.

5.1.12.1 Recommendation

The assessment team recommends that MSHAC further discuss the current balance of obligations between the operator, and the SSE.

We further recommend that MSHAC consider whether s38 MQSHA needs to be amended to deal with the issue of offsite directions being given to the SSE by individuals without any specific obligations under the Act.

5.1.13 Section 40, Obligations of contractors; and Section 44, Obligations of service providers

In common with the CMSHA, the MQSHA sets out separate obligations for contractors, and service providers.

Many of our interviewees indicated that they felt the MQSHA did not clearly delineate who fell within each category. The assessment team notes that the terms 'contractor' and

'service provider' are not defined in the Dictionary to the Act. Nor does there appear to be any clear delineation between the two terms in common usage. The assessment team has been advised that guidance material is being developed to assist stakeholders to differentiate between 'contractors' and 'service providers'. While this may well be helpful, we are of the view that the Act itself needs to be clear about which persons have which accountabilities.

In our view, there should be further discussion as to who is meant to be captured by each set of obligations, and the terms 'contractor' and 'service provider' should be defined in the MQSHA. In saying this, we are going beyond our recommendation in the review of the coal mining safety and health legislative framework (wherein we recommended only that 'service provider' be defined). We would, however, now apply the same approach to both Acts.

The assessment team also believes that s44 needs to be amended to address an apparent internal inconsistency. Section 44 provides, in part, as follows:

44 Obligation of service providers

(1) A person who provides a service (a service provider) at a mine has the following obligations-

(d) if the service provider is present at the mine….

As will be seen, s44(1) appears to apply only to persons providing a service at a mine, while s44(1)(d) appears to contemplate a circumstance where the provider is not present at the mine. We do note, however, that s30(2)(h) MQSHA, which lists the holders of particular obligations for safety and health refers explicitly to a person 'who supplies a service at a mine'. As we have indicated, when commenting on the companion provision in the CMSHA, the issue is much more than a semantic one. At s44(1)(f) service providers are obliged to provide a safety and health management plan to the SSE, and to make any changes required by the SSE before the service is provided.

As was the case during our review of the coal mining safety and health legislative framework, our interviewees were divided as to how they currently applied s44. While most mining and quarrying industry interviewees worked on the basis that s44 only applies to service providers at a minesite; others required offsite providers to meet s44. Our government and union interviewees commonly argued that s44 applied, or should apply, to both onsite, and offsite, service providers. Interviewees across the board agreed that confusion as to who held obligations under this section needed to be resolved.

In our assessment of the CMSHA, we have recommended that s47, the equivalent provision to s44 MQSHA, be amended to clarify that *'a person who provides a service to a coal mine has the following obligations*…'. We note that a number of our mining and quarrying industry interviewees were opposed to making a similar amendment to s44. For those interviewees, offsite service providers, providing a service to a mine or quarry, were adequately catered for under the WHSA. While it may be useful for MSHAC to discuss the issue further, we would not recommend taking a differential approach to the obligations of service providers in each of the CMSHA, and MQSHA.

5.1.13.1 Recommendations

The assessment team recommends that:

- MSHAC further discuss who is meant to be captured by the terms 'contractor' and 'service provider' with definitions of both terms being subsequently included in the MQSHA.

- Section 44(1) be amended to commence as follows: *'a person who provides a service to a mine has the following obligations…'*

5.1.14 Section 41, Obligations of designers, manufacturers, importers and suppliers of plant etc. for use at mines

Section 41 MQSHA also mirrors an equivalent provision, namely s44, in the CMSHA. In our review of the coal mining safety and health legislative framework we have recommended that the word 'etc' be removed from the title of s44 CMSHA, given its potential for confusion. The vagueness of the word 'etc' was also raised during our mining and quarrying interviews.

We were also given an example of a 'distributor' of plant who had argued that he had no specific obligations under the Act on the basis that he was not an 'importer' or a 'supplier' of plant. We note that, arguably, the definition of 'supplier' provided in the Dictionary to the CMSHA, may not be sufficient to cover a situation where a person distributes plant, but does not actually contract to supply it to a particular site. The assessment team believes that it is important that this potential 'gap' in obligations be addressed.

During the coal review, it was proposed that the terms 'design' and 'manufacture' should be defined in the Act. The assessment team supported this suggestion on the basis, again, of bringing greater precision to the matter of who, particularly, holds obligations under the CMSHA.

5.1.14.1 Recommendations

In keeping with the approach we have taken to the equivalent provision in the CMSHA; the assessment team recommends that:

- The term 'etc' should be removed from the title of s41 MQSHA
- Either 'distributors' of plant should be specifically mentioned in s41, or the definition of 'supplier' should be amended to encompass distributors as described
- The terms 'design' and 'manufacture' should be defined in the Dictionary to the MQSHA.

5.1.15 Section 47, Notices by operator

At present s47(1)(b) MQSHA requires, in part, that operators 'must give an inspector for the region in which a mine is situated' 'a facility description for the mine'. Section 47(1)(b)(ii) stipulates that in certain circumstances this description be provided 'at least two months before operations start'.

Section 47(2) provides as follows:

47 Notices by operator

(2) For subsection (1)(b), the facility description must include enough information to decide the risk management measures that will be necessary for an effective safety and health management system.

Interviewees from varying backgrounds noted that interaction between industry and the inspectorate over what constituted an acceptable 'facility description', particularly for new mines, could be very time consuming. Some interviewees suggested that the rationale for submitting a 'facility description' should be discussed and clarified, with a view to determining what was really required.

The assessment team notes that the wording of s47(2) does not clearly indicate who is meant to 'decide the risk management measures that will be necessary for an effective safety and health management system'. If, as would be consistent with the whole of the MQSHA, this person is the SSE, then it seems reasonable to argue that the SSE should be able to determine the scope of the material provided to the inspectorate in this regard. An alternative would be to delete s47(2) altogether.

We note that s50 CMSHA, which deals with notices by coal mine operators, is worded very differently to s47 MQSHA. In the former case no 'facility description' is required.

5.1.15.1 Recommendation

The assessment team recommends that MSHAC give further consideration to the purpose of s47, with a view to determining how the section should be amended.

5.1.16 Section 49, Appointment of site senior executive

Our interviewees raised two issues in relation to s49 MQSHA.

We were advised of an example where a Council apparently appointed an SSE for quarries, and that person in turn had appointed individual SSEs for individual pits. If the example is correctly described, this is surprising given that, under s49, only an operator has the power of appointment of SSEs.

One interviewee also queried whether s49 needed to be updated to take account of the circumstances that could be faced by very large operations. It was suggested that, at those operations, it may be both appropriate and safe, for operators to be able to appoint more than one SSE for a mine. The assessment team is not in a position to advise on whether an operator should, or shouldn't, be able to appoint more than one SSE for a mine, or part of a mine for which the person is the operator. This is a matter of policy.

5.1.16.1 Recommendation

That MSHAC discuss the points made by interviewees.

5.1.17 Section 50, Management structure for safe operations at mines

Section 7 of the MQSHA sets out the core means by which the objects of the Act are to be achieved. Relevantly, s7(h) provides that one such means is through:

(h) requiring management structures so that persons may competently supervise the safe operation of mines;

This provision is elaborated on in s50, which provides, in part, as follows:

50 Management structure for safe operations at mines

(1) The site senior executive must-
(a) develop and maintain a management structure for the mine in a way that allows development and implementation of the safety and health management system; and
(b) document the management structure.

(2) The document must-

(a) state the responsibilities of the site senior executive; and
(b) state the responsibilities required for senior positions in the structure; and…
(ca) the name of the person who is responsible for establishing and implementing a system for managing contractors and service providers at the coal mine; and
(d) provide for a competent person to perform the duties of a supervisor while the supervisor is absent.

As was the case with the similar provision in the CMSHA (s55), our mining and quarrying interviewees expressed considerable confusion about the scope of this section. Specific issues raised by interviewees are summarised below:

- There is a lack of clarity as to whether supervisory positions constitute 'senior positions' for the purposes of s50(2). Some interviewees indicated they included supervisors in the 'management structure'. Others did not.
- There is a lack of clarity as to whether the 'management structure' is meant to reflect the positions with key accountabilities for implementation of the SHMS, or whether what is required is a more general organisation chart, or organogram.
- The scope of who is meant to be covered by s50(2)(ca) is unclear. Interviewees queried whether or not the sub-section was meant only to encompass the most senior person responsible for managing contractors and service providers, or all persons responsible for implementing the system for managing contractors and service providers.
- The rationale for inclusion of s50(2)(a) is not clear, given that SSEs' accountabilities are stipulated in detail elsewhere.

Some interviewees questioned whether s50 was necessary at all. We would observe here that removal of s50 altogether, as proposed by some, would be inconsistent with the objects

of the Act.

Many interviewees indicated that they were unsure as to exactly what s50 was meant to achieve.

Across the board, there was general interest in clarifying s50 MQSHA.

The assessment team believes that s50 does need to be amended to more precisely indicate what is required. As a first step, we would suggest that the purpose of the provision be discussed further by MSHAC.

5.1.17.1 Recommendation

The assessment team recommends that MSHAC discuss the purpose of s50. Amendments to the section to clarify specific areas of uncertainty should be made after the intent of the section as a whole has been examined.

5.1.18 Section 53, Additional requirements for management of underground mines

Some interviews expressed concern that s53 did not adequately articulate the role and obligations of underground mine managers (UGMMs) under the Act. For ease of reference, s53 is set out, in part, below:

53 Additional requirements for management of underground mines

(1) The site senior executive must appoint a person to be underground mine manager to control and manage an underground mine.

Interviewees indicated that they thought 'control and manage' was too vague a description of the UGMM function. Interviewees also suggested that the interaction between the accountabilities of the SSE and the accountabilities of the UGMM should be made clear. There was concern that, as worded, SSEs could argue that their accountabilities for undergrounds had been devolved onto UGMMs. We note that the wording of s53(1) mirrors that of s60 CMSHA. During our review of the coal mining safety and health legislative framework, no concerns were raised in regard to the use of the 'control and manage' terminology. We are unclear as to why this terminology should be of particular concern in the mining and quarrying sector.

Separately, interviewees observed that it was not evident whether or not an SSE could still direct an UGMM on technical matters, given that the UGMM was 'controlling and managing' the underground mine. Interviewees argued that an SSE should not be able to do so unless he or she also had a first class certificate of competency. In that regard, the assessment team notes that s60(6) CMSHA provides that 'a person must not give a direction to the underground mine manager about a technical matter…unless the person giving the direction is the holder of a first class certificate of competency for an underground coal mine'. In our review of the coal mining safety and health legislative framework we have recommended that the term 'technical matter' be defined in the CMSHA.

A further issue raised with the assessment team is the question of whether or not s53

MQSHA should specify that an UGMM cannot be appointed by two operators to be the UGMM at two sites. We were advised that, in practice, this had occurred.

It was also suggested that s53(3), which specifies that UGMMs at sites where '20 or more persons work underground', must hold a first class certificate of competency, should be amended to apply this requirement to sites where 10 or more persons are working underground. It was argued that some of the latter types of mines, particularly those going back into old workings, had as much need of an UGMM with a first class ticket, as the operations with larger worker numbers.

The assessment team believes that all of the matters raised should be discussed further by MSHAC.

5.1.18.1 Recommendation

The assessment team recommends that MSHAC further discuss:

- Whether the term 'control and manage' requires any additional specification
- The possible introduction of a new requirement prohibiting directions being given to an UGMM about a 'technical matter' unless the person directing holds a first class certificate of competency (with 'technical matter' suitably defined).
- Whether a prohibition on an UGMM being appointed to two sites, by two different operators is required
- Whether s53(3) should be amended as proposed.

5.1.19 Section 54, Appointment of another underground mine manager during temporary absence

During our interviews, it was suggested that there was no practical reason for requiring a temporary replacement to be appointed if an UGMM was 'absent from duty for more than 14 days' (s54(1)). It was noted that the absent UGMM would very likely be able to be contacted even if that person was not physically on duty. The assessment team notes that s60(8) CMSHA requires the equivalent replacement appointment be made 'when(ever) the manager is not in attendance at the mine'.

The assessment team is not persuaded that any particular recommendation needs to be made in relation to s54. However, given that this is a matter of policy, it is a question best discussed by MSHAC.

5.1.19.1 Recommendation

The assessment team recommends MSHAC consider whether there is any need to amend s54.

5.1.20 Section 54B, Absence of ventilation officer

Section 54B(5) stipulates that where a ventilation officer is absent 'for more than 14 days', the SSE 'must appoint a person to act as the ventilation officer during the absence'. It was

suggested that this period should be longer, on the basis that an absence of more than 14 days was unlikely to be critical. A number of interviewees expressed strong views to the effect that the position of ventilation officer was, in any case, practically unnecessary for many underground mines.

Once again, this is a matter of policy best discussed by MSHAC.

5.1.20.1 Recommendation

The assessment team recommends that MSHAC consider whether there is any need to amend s54B as proposed.

5.1.21 Section 58, Plans of mine workings

The assessment team received considerable feedback on s58. For ease of reference, the pertinent components of s58 are set out below:

58 Plans of mine workings

(2) A site senior executive, if asked by an inspector, inspection officer or district workers' representative, must give to the inspector, officer or representative plans showing the extent of the mine workings or the current position of any part of the mine workings…

(3) Within 14 days after the abandonment of a mine, the person who was the operator for the mine immediately before the abandonment must give the chief inspector plans showing the extent of operations undertaken at the mine.

Some industry interviewees queried how 'current' the position of mine workings on plans provided to the inspectorate - as per s58(2) - needed to be. Given the penalties attached to failure to provide an appropriate plan, the assessment team would see value in clarifying this term in the context of the Act.

Some government interviewees argued that further detail needed to be included in the plans provided under s58(2). Suggestions were made that plans should delineate geotechnical hazards; and stipulate the qualifications of those who had prepared plans. The assessment team believes that it is important for any potential amendments to s58(2) to be considered in the context of the respective roles of the inspector and the SSE. It would not be appropriate, or consistent with the MQSHA, for inspectors to take on a pseudo 'plan approval' role, or more concerning still, a pseudo 'mine approval' role. We emphasise here that we are not criticising those seeking more detail; merely suggesting that consideration be given to why that detail is being sought.

Government interviewees in general were concerned that, notwithstanding s58(3), it was quite probable that mines could be abandoned with no plans provided. It was suggested that, to avoid this scenario, either plans should be submitted by all mines on an annual basis; or when a mine is non-operational for 2 months, placed into receivership or abandoned. The assessment team appreciates the concern expressed by interviewees that

abandoned mines, for which no plans are submitted, pose a potential safety risk. We would support this issue being addressed through an amendment to s58.

5.1.21.1 Recommendations

The assessment team recommends that:

- The term 'current', in the context of s58, be defined in the Dictionary to the MQSHA
- MSHAC further discuss whether any amendments are required to specify that additional detail be provided under s58(2)
- Positive consideration be given to amending s58 to deal with the issue of mines that are abandoned without submission of plans to the inspectorate.

5.1.22 Section 59, Mine record

Section 59 MQSHA purports to prescribe the core components of the 'mine record', as well as setting out how it may be accessed. During our interviews, we encountered across the board confusion as to the scope of what needs to be included in the mine record. There is also considerable uncertainty over the purpose of the section – that is, what is the maintenance of a mine record meant to achieve? In our view, the wording of the section fosters this uncertainty. It should be noted that while 'mine record' is a term listed in the Dictionary to the Act, the reader seeking clarity is, once again, referred back to the section itself. Section 59 MQSHA mirrors s68 CMSHA. During our review of the coal mining safety and health framework we encountered similar uncertainty about the mine record provisions.

At present s59 MQSHA provides, in part, as follows:

59 Mine record

(1) An operator for a mine must keep a mine record that includes-

(a) all reports of, and findings and recommendations resulting from, inspections, investigations and audits carried out at the mine under this Act; and

(b) all directives issued under this Act to the operator and the operator's agents or representatives; and

(c) a record of all remedial actions taken as a result of directives issued under this Act; and

(d) a record of and reports about all serious accidents and high potential incidents that have happened at the mine; and

(e) all other reports or information that may be prescribed under a regulation for this section.

While sections 59(1) (b), (c), and (d) are clearly drafted, and understood by interviewees, there is both room for doubt, and actual doubt, about the scope of sub-sections 59(1) (a) and (e). Our interviews suggest that s59(1)(a) in particular is interpreted very differently at different mines. In some instances, s59(1)(a) is taken to apply only to those inspections, investigations and audits carried out by inspectors. In others, the provision is taken to mean all inspections, investigations and audits carried out under the Act. Even amongst government interviewees there are differing views as to the meaning of s59(1)(a). Not surprisingly, there was general interviewee interest in amending s59(1) to be more specific

about what documents fall within the scope of the term 'mine record'.

The assessment team believes that while s59(1)(a) might, as some interviewees have noted, not contain any explicit restriction to the effect that only inspectorate reports etc are to be included; when s59(1)(a) is read in conjunction with ss59(1)(b) and (c) this interpretation is perhaps not unsurprising. In any case, where the meaning of a provision is so clearly contested, we would also strongly support its clarification.

We note that there is a 2008 Guidance Note on *Keeping and Using the Mine Record at Mining and Quarrying Operations in Queensland*.[24] The Guidance Note discussed the possible use of a mine record book, and notes that it 'can be used for the core parts of the mine record including reports made by inspectors, inspection officers, [and] district workers' representatives'. The Guidance Note does not clarify the scope of s59(1)(a).[25]

The confusion over what is, and isn't, captured under the terms of section 59(1) has impacted views of s59(4) which reads, in part as follows:

> *(4) The operator must ensure the mine record, relating to the previous 6 months at least, is available at all reasonable times for inspection by each of the following-*
> *(a) workers at the mine;*

Some interviewees felt strongly that the reference to 'at all reasonable times' should be removed, arguing that workers should be able to view reports whenever they needed to do so. Others contended equally strongly that the sheer scope of the mine record, as well as the need to guard against 'unreasonable' requests, meant that access to it needed to be controlled, and the reference to 'at all reasonable times' retained.

5.1.22.1 Recommendation

The assessment team strongly recommends that MSHAC revisit the scope and purpose of the mine record with a view to clarifying s59(1). This re-examination could usefully be conducted in conjunction with CMSHAC. Access to the mine record under s59(4) should be considered subsequent to this discussion on mine record scope.

5.1.23 Section 60, Display of reports and directives

At present s60 reads as follows:

> ***60 Display of reports and directives***
> *The site senior executive must display a copy of current directives and reports of inspections carried out at a mine under this Act in 1 or more conspicuous positions at the mine in a way likely to come to the attention of workers at the mine affected by the directive.*

[24] QGN 05 - *Guidance Note on Keeping and Using the Mine Record at Mining and Quarrying Operations in Queensland*.
[25] QGN 05.

During our review of the coal mining safety and health legislative framework, queries were raised about the term 'conspicuous positions', with the suggestion made that directives and reports of inspections should be specifically required to be displayed at all entry points to the mine. The assessment team supported an amendment to the CMSHA in that regard. We see no particular reason why the same approach should not be taken in relation to s60 MQSHA.

Additionally, we note that the word 'report' may be missing from the end of s60. We query, given the title of this section, whether s60 should also be amended to refer to 'the attention of workers at the mine affected by the directive *or report*'.

5.1.23.1 Recommendation

The assessment team recommends that s60 MQSHA be amended to require that directives and reports are displayed at all entry points to the mine.

We further recommend that the words 'or report' be added to the end of this section.

5.1.24 Part 6, Division 2, Mining safety and health advisory committee and its functions

The assessment team received a range of comments in regard to the role and composition of MSHAC.

Some interviewees questioned how MSHAC was meant to form a view on the 'effectiveness of the control of risk to any person from operations' as required by s67(2)(b). Concerns were expressed that the material provided to MSHAC did not place members in a situation where they felt sufficiently informed to pass judgment on this matter. It is worth noting that similar comments were made during the review of the coal mining safety and health legislative framework in relation to CMSHAC.

Concerns were also expressed that there was insufficient representation from medium sized operators, and from those with health, rather than safety, expertise. In addition, it was suggested that s74(A) *Substitute members* should be amended to allow substitutes from industrial organisations other than the 'industrial organisation that represents the majority of the workers in Queensland'. As an alternative, it was further suggested that observers should be allowed to attend MSHAC meetings in place of absent members.

5.1.24.1 Recommendation

The assessment team believes that the matters raised are best discussed by the Commissioner, MSHAC, and the Queensland Government. These matters involve policy judgements in relation to the role and nature of MSHAC.

5.1.25 Part 7, Division 2, Site safety and health representatives

The assessment team received a range of comments on this Part. Overall the Part was described as 'incredibly poorly written' and excessively complex. As we have indicated

previously, we would agree that the Part contains considerable material of an administrative and operational nature and would support its simplification within the Act.

5.1.26 Section 84, Selection or election of site safety and health representatives

Some interviewees suggested that s84 needed to be amended to provide that SSHRs could be elected to represent the various functional components of the mine eg. 'the pit, maintenance, and processing'. Interviewees argued that SSHRs drawn from the mining workforce were not necessarily well placed to understand other hazards; and represent other workers. We note that s84(3) does allow the SSE and workers to decide that additional SSHRs are required 'if they consider this is necessary because of the size and complexity of operations'. We were advised that this provision was insufficient to deal with the issues raised.

The question of whether or not s84(3) should be amended as proposed is a matter of policy.

5.1.26.1 Recommendation

The assessment team recommends that MSHAC consider whether it would be appropriate to amend s84(3) in light of the issue raised.

5.1.27 Section 92, Functions of site safety and health representatives

The assessment team was advised that some SSHRs were not being given the time to perform their roles, and, in particular, to conduct inspections, in work hours. While we are not in a position to comment on the accuracy, or otherwise, of this assertion, we note that a similar concern was raised in the context of the review of the coal mining safety and health legislative framework. In that instance we commented that, if true, requiring SSHRs to, for example, conduct inspections on their own time seemed at odds with the role allocated to the SSHR under the legislation. We recommended that s99 CMSHA be clarified to indicate that inspections would normally be conducted during an SSHR's shift at the mine.

During the coal assessment, questions were also raised as to what 'procedures' an SSHR should be able to review; and as to what constituted 'reasonable help' that must be provided to an SSHR by supervisors and the SSE. We recommended clarification of the term 'procedures' in the context of s99(1)(b) CMSHA, and definition of the term 'reasonable help' in the context of s99(2) CMSHA. The assessment team notes that both terms are also utilised in s92 MQSHA. While no concerns regarding their definition were raised during the course of our mining and quarrying interviews, it would be appropriate for MSHAC to consider whether the recommendations made in relation to s99 CMSHA should also apply to s92 MQSHA.

5.1.27.1 Recommendation

The assessment team recommends:

- That s92 MQHSA be amended to clarify that SSHR inspections would normally be conducted during an SSHR's shift at the mine.
- That MSHAC consider whether other amendments to s92 are required in accordance

with the changes proposed for s99 CMSHA.

5.1.28 Section 93, Powers of site safety and health representative

Section 93(b) provides that SSHRs have the power to 'examine any documents relevant to safety and health held by the site senior executive under this Act' under certain specified circumstances. Contrary to s116 which sets out the powers of District Workers' Representatives (DWRs), s93(b) does not contain an explicit power for SSHRs to make, or request, copies of documents. The inability of SSHRs to make, or request, copies of documents was raised as a concern during our review of the coal mining safety and health legislative framework; with examples given of circumstances where the lack of this power had led to considerable frustrations for SSHRs. We subsequently recommended that a potential amendment be discussed by CMSHAC. The assessment team notes that while none of our mining and quarrying interviewees raised this issue during interviews, we did not speak, (as we did during the coal review), with any SSHRs.

5.1.28.1 Recommendation

That MSHAC consider, in conjunction with CMSHAC, whether s93 should be amended to provide SSHRs with the power to make or request copies of documents.

5.1.29 Section 116, Powers of district workers' representatives

During our interviews we received some suggestions to the effect that s116(1)(b) should be amended so that DWRs do not have to 'announce their inspections'. Section 116(1)(b) currently provides as follows:

116 Powers of district workers' representatives

(1) A district workers' representative has the following powers-

(b) to enter any part of a mine at any time to carry out the representative's functions, if reasonable notice of the proposed entry is given to the site senior executive or the site senior executive's representative;

Interviewees described circumstances where DWRs had observed what seemed to be excessive dust whilst driving past a site; but had difficulty in gaining ready access to the site on the grounds that no 'reasonable notice' had been provided. It was suggested that requiring such notice allowed sites an opportunity cease the operations generating the dust before the DWR came onsite. Other examples of this type were provided. Queries were also raised as to what, exactly, constituted 'reasonable notice'. It was suggested that the requirement for 'reasonable notice' should be removed from s116.

The assessment team notes that Industry Safety and Health Representatives under the CMSHA also have to provide 'reasonable notice' before entering any part of a coal mine.[26] We were informed, however, that it would be appropriate to distinguish DWRs from ISHRs on the basis that DWRs, 'work out of the inspectorate office, are paid by the inspectorate' and are 'essentially part of the inspectorate team'. Nevertheless, we would point out that as

[26] See s119(1)(b) CMSHA.

DWRs are not actually inspectors; the alteration to s116 that is proposed would constitute a policy change.

5.1.29.1 Recommendation

The assessment team recommends that MSHAC give further consideration to the question of whether DWRs should be able to enter a mine without giving 'reasonable notice'.

5.1.30 Section 125, Functions of inspectors and inspection officers

During the course of our interviews, some concerns were expressed about the quality and scope of investigations conducted by inspectors. Sub-sections 125 (h) (i) and (j) provide inspectors with a range of investigatory functions. The manner in which inspectors should undertake those functions is not prescribed. We note the suggestion that these sub-sections could be amended to stipulate that inspectors can conduct 'comprehensive investigations', with this term being then defined in the Dictionary to the MQSHA. We are of the view that there is nothing in the present wording that prevents inspectors from doing so.

5.1.30.1 Recommendation

The assessment team recommends that MSHAC give further consideration to whether it is necessary to amend s125 in the manner proposed.

5.1.31 Section 130, Entry to places

During our review of the coal mining safety and health legislative framework, we were advised that Inspectors were, in certain instances, having to wait for long periods at electronically controlled gatehouses. We supported a proposal that, within the limited terms of s133(2) CMSHA, inspector access be allowed without barriers. Section 133(2) CMSHA, mirrors s130(2) MQSHA. Section 130(2) MQSHA currently reads as follows:

130 Entry to places

(2) For subsection (1) (a), for the purpose of asking the occupier of a place for consent to enter, an office may, without the occupier's consent or warrant-

(a) enter land around premises at the place to an extent that is reasonable to contact the occupier; or

(b) enter part of the place the officer reasonably considers members of the public ordinarily are allowed to enter when they wish to contact the occupier.

While our mining and quarrying interviewees did not raise any particular issues in relation to s130 MQSHA; the assessment team believes it would be appropriate to make the same amendment to s130(2), as has been proposed for s133(2) CMSHA.

5.1.31.1 Recommendation

The assessment team recommends that s130(2) be amended to specify that 'an SSE should ensure that access for the purposes of this sub-section is not obstructed'.

5.1.32 Part 9, Division 5, Directives

As is the case with the CMSHA, the MQSHA provides for a range of directives. For these directives to be issued, differing standards must be met. The directives, and the required standards are set out below:

s161 Directive to ensure worker competent – 'belief' required
s162 Directive to carry out test – 'reasonable suspicion' required
s163 Directive to reduce risk – 'reasonable belief' required
s164 Directive to suspend operations for unacceptable level of risk – 'belief' required
s165 Directive to review SHMS – 'belief' required
s166 Directive to suspend operations for ineffective safety and health management system – 'belief' required
s167 Directive to isolate site – 'belief' required
s168 Directive about separate part of the mine – no standard specified
s169 Directive to provide independent engineering study – no standard specified.

While recognising both that the directives listed deal with circumstances with varying degrees of urgency; and that the consequences of particular directives for sites range considerably; we are nevertheless of the view that there would be value in reviewing the standards required before directives may be issued. At minimum, for consistency and clarity, we would suggest that the standard in s162 be changed to 'reasonable belief'. More than this, however, we are unconvinced that the current mix of 'belief' and 'reasonable belief' should be retained as is.

During our interviews, we did receive some feedback to the effect that inspectors should be able to issue directives in other circumstances, including to direct that a particular action should be taken in response to a risk; and to intervene to prevent a risk from emerging or escalating. Clearly, this proposed expansion of directives is a matter of policy.

5.1.32.1 Recommendation

The assessment team recommends that MSHAC, and/or the Inspectorate, review the standards applied across Part 9, Division 5, Subdivision 2 MQSHA, and consider further the proposed expansion in the range of available directives.

5.1.33 Section 195, Notice of accidents, incidents, deaths or diseases; and Schedule 1 MQSHR

Some of our interviewees expressed strong concerns that many high potential incidents (HPIs) were not being reported. We were given examples of incidents that interviewees felt should have been reported; but were not. Once again, the assessment team is not in a position to confirm or otherwise the veracity of the examples provided. We would comment, however, that the examples were provided by interviewees from varying backgrounds, and, on their face, appeared to readily fall within the meaning of a HPI as set out in s18 MQSHA. Interviewees suggested that requirements for incident reporting needed to be strengthened.

A number of specific issues were also raised in relation to s195, and the accompanying

Schedule 1 MQSHR. Some interviewees queried why, in s195(1), an SSE was required to notify an inspector and a DWR 'as soon as practicable' after becoming aware of a serious accident, high potential incident or death at a mine; but in s195(3) the SSE was required to provide further information 'as soon as possible'. We note that a similar query was raised during our review of the coal mining safety and health legislative framework. The terms 'practicable' and 'possible' are given as synonyms in a number of dictionaries. The argument, put by one interviewee, that the two terms denote differing lengths of time is, in our view, difficult to sustain. Other interviewees proposed that specific timeframes for reporting should be provided in s195.

Interviewees also queried why it was necessary to include further specification of the types of incidents that must be reported in sub-section 195(2); when those incident types were already mentioned in sub-section 195(1). It was suggested that s195(2) could be deleted.

Concerns were also raised that the listing of HPIs in Schedule 1 was inadequate, with a number of interviewees seeking a change to Schedule 1(5)(o) which currently provides that 'an unforeseen incident that the site senior executive considers appropriate be reported'. Examples were given of multiple circumstances where an SSE had apparently not deemed reporting of an incident to be necessary, notwithstanding the contrary views of inspectors, DWRs, SSHRs, and others onsite. Interviewees suggested, variously, that SSEs could be required to report any incident that an inspector or DWR considered to be a HPI; or that penalties for failure to report should be increased.

5.1.33.1 Recommendations

In keeping with our recommendations in regard to s198 CMSHA; the assessment team proposes that 'as soon as possible' be the term used in both s195(1) and s195(3) MQSHA.

We further recommend that MSHAC give consideration to the other issues raised in relation to s195, and Schedule 1 MQSHR.

5.1.34 Section 195A, Requirement to give primary information

During our review of the coal mining safety and health legislative framework, it was suggested that s198A, the equivalent provision in the CMSHA to s195A in the MQSHA, be amended to stipulate that 'worker type' (that is, whether the worker is a contractor employee, or an employee of the operator), should be part of the 'primary information' required under the section. We see merit in a similar amendment to s195A MQSHA.

5.1.34.1 Recommendation

The assessment team supports the inclusion of 'worker type' in s195A.

5.1.35 Section 197, Site not to be interfered with without permission

During our review of the coal mining safety and health legislative framework, it was suggested that s200(1) CMSHA, the equivalent provision to s197 MQSHA, should be amended to define the word 'interfere'. The assessment team was given an example of a

person being prevented from taking photographs of an incident scene on the grounds that this constituted 'interference'. We expressed the view that, taking the approach of the High Court of Australia in utilising Macquarie Dictionary definitions, the taking of a photograph would not normally fit within the confines of the term 'interference'. We supported clarification of the term 'interfere' as proposed. Once again, we would see merit in making a similar amendment to s197 MQSHA.

5.1.35.1 Recommendation

The assessment team recommends that the term 'interfere' in the context of s197 be defined.

5.1.36 Section 198, Action to be taken in relation to site of accident or incident

Section 198 currently requires an SSE to prepare a report about a serious accident or incident 'that includes recommendations to prevent the accident or incident happening again'. It has been suggested that this section should be augmented with a requirement for the report to include 'a description of the accident or incident, a timeline of the accident or incident, [and] the causes of the accident or incident'. The assessment team was not provided with any particular explanation as to why this proposed amendment was perceived as necessary.

5.1.36.1 Recommendation

The assessment team recommends that MSHAC give further consideration to whether an amendment to s198, as proposed, is required.

5.1.37 Section 250, Persons must not employ underage persons underground

Section 250 presently reads as follows:

250 Person must not employ underage persons underground

A person must not employ a person under the age of 16 as an underground worker.

A number of interviewees have queried whether or not this restriction should apply to small gem mines. They have noted that in some cases children, who may be extended family members, or friends, will visit a mine, and undertake work there in return for payment in gems. Interviewees were unclear as to whether or not those children could be considered to be 'employed' for the purposes of s250 MQSHA. The assessment team believes there would be value in specifically clarifying whether s250 applies in these circumstances.

5.1.37.1 Recommendation

The assessment team recommends that s250 should be clarified in the context of the issues raised.

5.1.38 Section 250A, Underage persons not to operate or maintain plant

Section 250A currently provides as follows:

250A Underage persons not to operate or maintain plant

> *The site senior executive for a mine must not allow a person under the age of 16 to operate or maintain plant at the mine.*

Interviewees from varying backgrounds suggested that this provision might be unnecessarily restrictive. They noted that some apprentices can be less than 16 years of age, and queried whether the provision should be amended to allow apprentices to operate or maintain plant under supervision. The assessment team notes, in passing, that s272A CMSHA places an equivalent restriction on coal SSEs.

5.1.38.1 Recommendation

The assessment team recommends that the advisability, or otherwise, of amending s250A be discussed further by MSHAC. Were any relaxation of the provision to be contemplated; consideration should also be given to the appropriateness of making a similar adjustment to the CMSHA.

5.1.39 Section 254A, Protection from reprisal

Section 254A purports to provide protection against reprisals for persons who have 'raised a mine safety issue' or 'contacted or given help to an official in relation to a mine safety issue'. The assessment team received feedback from interviewees from varying backgrounds to the effect that this provision was too weak. Alleged examples of workers being too intimidated to report safety issues, and of workers being discriminated against after raising safety concerns were given. Once again, the assessment team emphasises that we are not in a position to confirm, or otherwise determine, the veracity of these examples.

In any case, the assessment team notes that s254A as it stands is both considerably less specific, and less broad in scope, than the prohibitions on discriminatory, coercive or misleading conduct set out at ss104 - 113 of the *Work Health and Safety Act 2011* (Qld). The WHSA approach, in our view, reflects a more modern view of prohibited conduct and protection from reprisal.

5.1.39.1 Recommendation

The assessment team recommends that s254A be replaced by the equivalent of ss 104 - 113 of the WHSA Qld.

5.1.40 Inspection officers

During our interviews, we received some feedback to the effect that references to inspection officers in the MQSHA should be removed on the basis that those roles no longer existed. We note, however, that there does not appear to have been formal government decision to

dispense with these positions permanently. In the absence of any such decision it seems premature to delete the role of 'inspection officer' from the Act.

5.1.41 NOHSC

The MQSHA and MQSHR contain a number of references to the National Occupational Health and Safety Commission (NOSHC); and to NOSHC documents. Given that NOHSC was abolished in 2005, and that both the organisation, and a number of the documents referenced in the MQSHA and MQSHR have since been superseded, it would be appropriate for the mining and quarrying legislative framework to be updated to reference Safe Work Australia (SWA), and SWA standards.

5.1.41.1 Recommendation

That the MQSHA and MQSHR be updated to reference SWA, and SWA standards.

5.1.42 Workers and worker number trigger points

Interviewees from varying backgrounds noted that across the MQSHA, and MQSHR there were varying 'worker' number 'trigger points'. Suggestions were made that these be reviewed to determine whether greater standardisation is appropriate. In addition, queries were raised as to whether the headcount of 'workers' employed was meant to be a total headcount, or an assessment of the number of people on shift, or at the site at a particular time.

The assessment team believes that, in the absence of any wording to the contrary, the provisions in question refer to headcounts based on the total number of workers in each category (eg. workers employed at a mine as per s38(4), or 'persons working underground in a mine' as per s53(3) MQSHA). However, we do see merit, from a clarity and consistency perspective, in a review of worker number trigger points as proposed.

5.1.42.1 Recommendation

The assessment team recommends that the inspectorate review worker number trigger points across the MQSHA and MQSHR with a view to determining whether further standardisation is appropriate.

5.2 Comprehensiveness

As indicated, interviewees identified a range of 'gaps' in the MQSHA, and the legislative framework as a whole. The following section discusses the points raised.

5.2.1 Remote Operations Centres

Interviewees from a range of backgrounds suggested that the MQSHA needed to be amended to specifically cater for the advent of remote operations centres. While some of our interviewees were seeking to amend the Act to prepare for a likely future scenario; others emphasised that their companies were making decisions now on establishing offsite

control centres.

The assessment team agrees that there is a need to update the MQSHA to deal with remote operations centres. We note that dispatchers in such centres do not work at mines, but have the potential ability to substantively affect safety outcomes at mines. They provide guidance and instructions to mine workers; but do not sit within a mine's supervisory structure. In the absence of any specific legislative provisions, the obligations applying to remote dispatchers are likely to be contested and unclear.

The need to augment current legislation to cater for remote operations centres was also raised in the context of our review of the coal mining safety and health legislative framework. In that instance we recommended the inclusion of a new section explicitly dealing with the obligations of remote operations centre dispatchers. In canvassing this option with our mining and quarrying interviewees, we identified considerable support for a similar amendment to the MQSHA.

5.2.1.1 Recommendation

That a new section be inserted into the MQSHA explicitly dealing with the obligations of remote operations centre dispatchers.

5.2.2 Statutory Functions

There was strong support across our interview sample for the creation of a geotechnical engineering statutory position. Interviewees commonly argued that a requirement for a geotechnical engineering statutory position would give greater impetus to more effective control of geotechnical risks. Interviewees emphasised the potential for geotechnical issues to lead to serious injuries and fatalities. Some were critical of what they saw as an imbalance in the MQSHA, given that while a ventilation officer statutory position had been included; the more 'necessary' geotechnical engineering position had not. Some interviewees also supported the establishment of mechanical engineer, quarry manager, and drill and blast engineer, statutory positions. Having said this, a minority of our interviewees were opposed to the introduction of any further statutory positions, particularly for smaller operations and quarries.

The assessment team notes that the question of what roles should be mandated as statutory positions is beyond the scope of this assessment.

5.2.2.1 Recommendation

That MSHAC give consideration to the feedback provided regarding statutory positions.

5.2.3 Obligations of supervisors

The assessment team received strong, conflicting views on whether or not the MQSHA should be amended to incorporate specific obligations for supervisors. Many of our interviewees, from a range of backgrounds, argued that the inclusion of specific supervisor obligations would help to concentrate a sense of accountability at the level which could most

influence safety outcomes on a daily basis. Some of our interviewees expressed frustration that supervisors had thus far been able to argue that they had no greater responsibilities under the Act than an ordinary mine or quarry worker. For a number of our interviewees, the absence of any specific supervisor obligations was the 'biggest gap' in the legislation.

In contrast, other interviewees argued that any attempt to include specific supervisor obligations in the MQSHA would run the risk that potential supervisor candidates would be unwilling to take on the role; and was unnecessary, given that SSEs would be able to take action against any supervisor who was failing to act appropriately in regard to safety and health.

During our review of the coal mining safety and health framework, the assessment team also received considerable feedback, from interviewees from a variety of backgrounds, to the effect that the CMSHA should be amended to provide for a specific section on the obligations of supervisors. In that instance, we supported the introduction of a new 'Obligations of supervisors' section into the CMSHA.

5.2.3.1 Recommendation

The assessment team believes there is a sound argument for the introduction of a separate 'Obligations of supervisors' section into the MQSHA. We suggest this be discussed further by MSHAC.

5.2.4 Competencies

The assessment team received a range of general comments on the current approach to competencies in the mining and quarrying sector. A number of interviewees commented that they felt there was too much fluidity, and variability in 'how people are passed out as competent'. Some interviewees argued for an overhaul of the entire system of assessing and certifying competency.

As these comments lie well outside of our scope, they are mentioned for completeness only.

5.2.5 Inspector Qualifications

Section 123 MQSHA currently provides as follows:

123 Qualifications for appointment as inspector
The chief executive may appoint a person as an inspector only if the chief executive considers the person has appropriate competencies and adequate experience to effectively perform an inspector's functions under this Act.

Many of our interviewees, from all backgrounds, contended strongly that this section needed to be augmented with new requirements for mining inspectors to have at least first class certificates of competency; and for mechanical and electrical inspectors to have requirements stipulated in the Act. Interviewees argued that it was incongruous for inspectors to have critical functions under the Act, and considerable powers, and not to be required to at least meet some statutory minimum requirements.

In contrast, other interviewees had no concerns with s123 as it stands; and indicated that the chief executive should not be limited in how he or she determined whether or not a candidate for an inspector's role was acceptable.

During our review of the coal mining safety and health legislative framework, coal interviewees also questioned why the CMSHA did not require inspectors to have any specific qualifications. In that review, the assessment team noted that the situation is similar in NSW where inspectors are required to have 'appropriate knowledge and skills, and adequate experience'; although s19 of the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* (NSW) does go on to indicate that if 'qualifications are prescribed by regulations for the purposes of this section', inspectors must have those qualifications or any deemed equivalent by the regulator. We nevertheless agreed that it seemed anomalous to require ISHRs to have 'first or second class certificates of competency or a deputy's certificate of competency', (as per s109 CMSHA), and not to require any specific qualifications in relation to inspectors. We went on to note, however, that, ultimately, the qualifications of inspectors and inspection officers are a matter for government.

5.2.5.1 Recommendation

The assessment team recommends that the Queensland Government consider stipulation of qualifications for inspectors and, as necessary, inspection officers in the MQSHA.

5.2.6 Industrial Manslaughter

Some of our interviewees indicated that they were strongly opposed to inclusion of any new provisions on industrial manslaughter in the MQSHA. Some interviewees also suggested that if industrial manslaughter provisions were added to the Act, then these provisions should apply to all parties, including mine workers.

We emphasise that we have not been asked to advise on the potential impact of industrial manslaughter provisions. We make no comment on whether industrial manslaughter legislation is, or isn't, efficacious in improving safety and health outcomes. Given that the introduction of industrial manslaughter provisions to the MQSHA would constitute a policy change beyond our scope, we make no further comment in this regard. The matter should instead be discussed by MSHAC.

5.2.7 Escalation of complaints

During the course of our interviews we were given several examples of apparent difficulties experienced by individuals in knowing how best to escalate complaints, about departmental responses to safety concerns, through the DNRME. Once again, we emphasise that we are not in a position to confirm the veracity, or otherwise, of these examples. We were advised that there is no clear pathway for individuals to follow if they are dissatisfied with inspectorate action, or inaction, (beyond the specific provisions in Part 9, Subdivision 4, dealing with review of directives).

Interviewees suggested that the MQSHA should be amended to more closely reflect provisions for review and escalation in the WHSA Qld, with clear time limits being introduced in which inspectors, the chief inspector, the Commissioner and others needed to respond to complaints made.

The assessment team has not had an opportunity to conduct any detailed examination of the relative adequacy of processes for making, and escalating, complaints under the MQSHA; and the WHSA. We note that there are provisions in the MQSHA outlining how to seek a review of a directive, (ss 172 - 175); and how to appeal against particular decisions of the Minister, chief executive, or board of examiners (ss 216, 216A, 217 and 218). However, we recognise that these provisions may not adequately cover what is being sought.

Beyond noting that the WHSA is certainly more specific in this regard, we are unable to offer a considered opinion on the relative merits of the two approaches.

5.2.8 Section 27, Risk management

Section 27 MQSHA sets out core components of risk management, including, at s27(3)(d) and (e) the investigation and analysis of serious accidents and HPIs, and the review of the effectiveness of risk control measures. During our interviews, it was suggested that the Act should be amended to require that all reports related to s27(3)(d) and (e) be provided to the inspectorate. The assessment team notes that the MQSHA already contains a range of provisions relating to incident investigation and reporting and risk management, and inspectorate functions and powers. We are not persuaded that any additional provisions, beyond those discussed elsewhere in this Report, are required.

6 MQSHR

As with the MQSHA, we have separated our discussion of the *Mining and Quarrying Safety and Health Regulation 2017* into issues regarding the clarity of the Regulation, and potential gaps. Where a matter has been dealt with earlier in this Report, we have not repeated our analysis in this section.

6.1 Clarity

Issues regarding the clarity of the MQSHR are discussed in the order in which the relevant provisions appear in the Regulation.

6.1.1 Section 7, Risk analysis

Section 7 MQSHR provides:

> ***7 Risk analysis***
>
> *(1) A person who has an obligation under the Act to manage risk at a mine must analyse risk in the person's own work and activities to decide whether the risk is at an acceptable level.*

(2) The person must have regard to the following in analysing the risk—

(a) the results of hazard identification, risk monitoring and incident investigations carried out for the mine;

(b) the work environment and work methods for the mine's operations;

(c) the interaction of hazards present at the mine;

(d) the effectiveness and reliability of hazard controls in use at the mine;

(e) other reasonably available relevant information and data from, and practices in, other industries and mining operations [emphasis added].

As will be seen, while most of s7 sets out specific, and in our view, readily understandable requirements, s7(2)(e) places a potentially very broad, indeterminate, onus on 'a person who has an obligation under the Act to manage risk at a mine'. The assessment team notes that, whether or not this was intended, the 'person' in question could be a mine or quarry worker, given that 'persons generally' have the obligation, under s36(2)(a) MQSHA to 'manage the risk of injury or illness to himself or herself or any other person in the worker's or other person's own work and activities…'

Several aspects of s7(2)(e) are of concern. There is no clarity as to what is meant by 'reasonably available' or 'relevant' information and data. There is no clarity as to what type of 'practices' should be considered. Perhaps most concerningly, there are no boundaries around the 'other industries' that anyone with an obligation under the Act is meant to 'have regard to'. The reader is left with no certainty as to how much time and effort must be spent, by every individual obligation holder, on 'having regard' to the ambiguously worded matters in s7(2)(e). In the assessment team's view, it is likely that a court would be highly critical of the uncertain scope of s7(2)(e). The lack of precision in this sub-section also leaves open the very real possibility that obligation holders may be subject to enforcement action on the basis of requirements best described as absurdly unclear.

During our interviews we heard from obligation holders who felt that s7(2)(e) had been abused 'to allow individual inspector biases to be applied'. Interviewees gave examples of inspectors utilising s7(2)(e) to instruct sites to adopt approaches and practices preferred by the inspector. Once again, we emphasise that we are not in a position to confirm the veracity, or otherwise, of these examples. Other interviewees indicated that they had been able to 'negotiate' with local inspectors as to what s7(2)(e) really required; but nevertheless expressed a strong preference for greater clarity in the section itself.

Notably, some of our government interviewees also stated that they saw s7(2)(e) as a 'powerful' section that was used 'all the time' as a remedial measure if inspectors wanted to ensure that sites took particular actions.

The assessment team reiterates that good law contains obligations that are both workable; and can readily be understood by obligation holders (without their having to 'negotiate'). In our view, s7(2)(e) fails to meet these requirements.

6.1.1.1 Recommendation

The assessment team recommends that either:

A Section 7(2)(e) be deleted, or;

B Section 7(2)(e) be redrafted to read as follows: 'other relevant information reasonably available to the obligation holder, concerning risk analysis and mining operations'.

Our preference is for option A.

6.1.2 Section 12, First aid and medical treatment

At present, s12 MQSHR reads as follows:

12 First aid and medical treatment

The site senior executive for a mine must ensure a person who is injured or whose health is affected, at the mine is given appropriate first aid or medical treatment.

During interviews, the question of what was 'appropriate' in the context of s12 was raised. It was suggested that this should be defined in the Act. Given that the assessment team was not provided with any particular examples of issues arising in relation to s12, we are not in a position to advise on whether or how the section might be amended. If there are problems with the interpretation of this section, we suggest they be discussed further at MSHAC.

6.1.2.1 Recommendation

That MSHAC members discuss whether any particular issues have arisen in the interpretation of s12 MQSHR.

6.1.3 Section 36A, Escapeways from underground

Section 36A currently requires, at s36A(1), that a mine must have 'at least 2 trafficable egresses' or escapeways before stoping operations start.

During interviews it was suggested that a requirement for 2 trafficable egresses could also apply where 'determined by the level of risk'. The assessment team believes that this suggestion should be discussed further by MSHAC.

6.1.3.1 Recommendation

The assessment team recommends that MSHAC give further consideration to whether s36A should be augmented to require 2 trafficable egresses in additional circumstances.

6.1.4 Section 43, Excavations

Section 43 currently reads, in part, as follows:

43 Excavations

(1) If an excavation exists on a mine site, the site senior executive for the mine must ensure appropriate facilities are provided to minimise the risk to persons from falling into the excavation.

During our interviews, it was observed that 'appropriate facilities' might vary dependent on where the mine or quarry was located. Questions were raised as to how s43 might be applied to differing circumstances. The assessment team notes that these are matters of implementation, rather than issues related to the wording of the section itself.

6.1.5 Section 44, Ground control

Some interviewees have suggested that s44, which deals with matters that must be considered in relation to ground integrity, should be augmented with a requirement for a ground control management plan, and/or a geotechnical assessment.

Earlier in this Report, the assessment team has recommended that MSHAC give positive consideration to amending the MQSHA and MQSHR to provide for principal hazard management planning; and that MSHAC evaluate whether PHMPs and PCPs should be introduced. Were these recommendations to be adopted, we would anticipate that ground control requirements more generally would need to be reconsidered. On that basis, we have not recommended any particular amendments to s44 at this stage.

6.1.6 Part 7, Hazardous chemicals and dangerous goods

Part 7 of the MQSHR deals with hazardous chemicals and dangerous goods. During interviews it was suggested that, given the advent of the *Globally Harmonized System of classification and labelling of chemicals* (GHS), and the issuing of QGL03: *Guideline for Hazardous Chemicals*, Part 7 needed to be 'completely overhauled'. The assessment team received suggestions both that Part 7 should be simplified, and that aspects of QGL03 should be shifted into Part 7. We were not, however, provided with any guidance as to particular provisions that could be removed, or transferred.

The assessment team believes that, in the light of the comments made, it would be appropriate for the inspectorate to review both Part 7, and QGL03, with a view to streamlining requirements across the two instruments. As previously indicated, where a requirement is viewed as mandatory, it should be inserted into the MQSHR, rather than a Guideline.

6.1.6.1 Recommendation

The assessment team recommends that the inspectorate review Part 7 MQSHR, and QGL03, with a view to streamlining requirements regarding hazardous chemicals and dangerous goods.

6.1.7 Section 70, Blasting procedures

Section 70(2) sets out the matters that must be covered in written procedures for blasting at a mine. As per s70(2)(h), procedures must encompass 'deciding when it is safe to re-enter the blasted area'. During interviews, we were given examples of circumstances where workers had entered an area 'too early' after blasting. Once again, we are not in a position to confirm the veracity or otherwise, of those examples. It was suggested that s70(2)(h) should be amended to provide that decisions regarding re-entry be made after monitoring of gases, or, indeed, after physical testing of the atmosphere.

The assessment team believes that this suggestion should be discussed further by MSHAC. We note the very real possibility that early entry after blasting could result in serious injury or death.

6.1.7.1 Recommendation

That MSHAC discuss whether s70(2)(h) should be amended as proposed.

6.1.8 Section 83, Plans of operations undertaken at abandoned mine

Section s83(2) requires that plans be 'in the format and of the quality required by the chief inspector'. The accompanying example of 'quality' refers to 'the quality of paper or ink used for the plans'. As noted by one of our interviewees, this example is very out of date. It should be removed.

6.1.8.1 Recommendation

That the example provided at s83(2) be deleted.

6.1.9 Section 90, Amenities for workers' fitness and health

Section 90 sets out the amenities that must be provided at a mine. During our review of the coal mining safety and health legislative framework, interviewees raised concerns about, and provided alleged examples of, serious difficulties faced by female coal mine workers in accessing toilet facilities. The assessment team went on to recommend an amendment to the CMSHR to require the SSE to ensure that the mine has sufficient toilets to cater for the needs of the largest number of workers, 'both women and men' who may be employed in a single shift. While we note that no issues were raised during our mining and quarrying interviews in regard to female employees accessing toilet facilities; we nevertheless suggest that MSHAC consider whether a similar amendment to the MQSHR may be appropriate.

6.1.9.1 Recommendation

That MSHAC consider whether or not s90 should be amended to stipulate that a mine have toilets sufficient for both male and female workers at the mine.

6.1.10 Section 91, Induction training and assessment

Section 91 MQSHR lists matters that must be encompassed by induction training at a mine. Interviewees from varying backgrounds noted that it seemed surprising that hazards, controls, and the past safety history of the site are not included in that listing. The assessment team shares the view that there would be value in incorporating these aspects in any mine induction. There may be value in amending s91 to stipulate that this be the case.

6.1.10.1 Recommendation

The assessment team recommends that MSHAC give consideration to amendment of s91 in accordance with the points raised.

6.1.11 Section 93, Training

A number of our interviewees expressed concern at what they saw as inadequate training in the mining and quarrying sector. Those concerns centred around:

- The competency of those providing both training courses and on-the-job instruction
- The variability of training on, for example, working at heights, or working in confined spaces, across sites
- Differing approaches to assessment which, allegedly, had resulted in some workers who were not competent to undertake particular duties, being passed out as adequate to do so.

Interviewees argued that variability in approaches to training represented an, as yet uncontrolled, safety risk.

It was suggested that s93 needed to be expanded to mandate qualifications for trainers, and more standard approaches to both training and assessment.

The assessment team acknowledges interviewee concerns, but is not persuaded that, in the absence of any re-think about industry training requirements more generally, it would be useful to amend s93 at this stage. It may be more effective to open up a substantive conversation amongst industry representatives to highlight, in more detail, current deficiencies, and options for addressing them.

6.1.12 Section 95, Time and resources for carrying out tasks

At present s95(2) reads, in part, as follows:

95 Time and resources for carrying out tasks

(2) …'the site senior executive must ensure the worker is given the supervision, and help from other competent persons, necessary to achieve an acceptable level of risk'.

During interviews, it was suggested that SSEs be specifically required to ensure that workers be provided with 'the technical assistance needed to get a task done'. Given the reference in s95(2) to 'help from other competent persons', the assessment team is not persuaded that any change is required.

6.1.13 Section 98, Checking work quality

Section 98 provides that in certain circumstances the quality of work output be 'checked by a person other than the person who carried out the work'. It was suggested that s98 be amended to specifically require peer review of the quality of geotechnical plans, given alleged examples of deficiencies in this regard. Once again, we would suggest that this particular issue may best be dealt with in the context of consideration of the introduction of requirements for PHMPs and PCPs.

6.1.14 Section 140, Using personal protective equipment

The assessment team were given a number of examples where, allegedly, personal protective equipment (PPE), that was not 'fit for purpose' had been supplied to workers. We were told that in some cases the inadequacy of PPE was directly linked to injuries and HPIs. Once again, we are not in a position to confirm the veracity, or otherwise, of the examples given. We were asked to consider whether s140 could be amended to 'tighten' requirements for appropriate PPE.

At present, s140(2) MQSHR provides, in part, as follows:

140 Using personal protective equipment

(2) The site senior executive for the mine must ensure-

(a) the person is given suitable and effective personal protective equipment; and…

On the face of it, s140(2)(a) may seem adequate to cover the circumstances raised. However, we note that during our review of the coal mining safety and health legislative framework it was suggested that PPE must be both 'appropriate for the hazards associated with the workers' tasks', (as already required by s64(a)(i) CMSHR); and 'appropriate for the hazards associated with the materials being used to carry out the task'. We recommended an amendment to s64 CMSHR to specifically deal with the latter point.

The assessment team believes there may be merit in amending s140(2) MQSHR to more specifically characterise the type of PPE that must be provided by SSEs. We note, of course, that making such an amendment will not, of itself, ensure that PPE actually provided at sites is 'fit for purpose'.

6.1.14.1 Recommendation

That MSHAC consider amending s140(2)(a) to read as follows:

(2) *The site senior executive for the mine must ensure-*

(a) the person is given personal protective equipment that is both suitable and effective for the hazards associated with the workers' tasks; and for the hazards associated with the materials being used to carry out the task.

6.2 Comprehensiveness

As with the MQSHA, a range of 'gaps' have been identified in relation to the MQSHR. The following sections discuss the points raised.

6.2.1 Consultation requirements

Some of our interviewees, who had experience in the coal sector, argued that the MQSHR should be amended to require the same consultation processes as those stipulated in s10 CMSHR in regard to 'developing standard operating procedures for managing and controlling hazards at the mine'. As s10 CMSHR is a relatively voluminous section it is not reproduced here but, in essence the section requires an SSE to 'consult with a cross-section' of workers 'involved in carrying out a task under a proposed standard operating procedure' 'to identify the hazards associated with the task and ways of controlling the hazards' (as per s10(1)(a)); before preparing a draft procedure. The draft is then to be provided to the aforementioned workers. The section sets out steps to be followed if workers agree, or fail to agree, with the draft procedure. Our interviewees indicated, that while the processes outlined in s10 CMSHR could be both time consuming and difficult, they did have the effect of engaging mine workers in consideration of hazards and controls; and in considering safety issues more generally.

The assessment team is well aware that there are some in the coal industry who would not view s10 CMSHR as favourably as these interviewees. We are also doubtful that a wholesale importation of s10 CMSHR into the MQSHR would be workable, given the range of operations covered by the MQSHR. Nevertheless, we do believe that the more general point, of whether or not worker consultation requirements should be more clearly specified in the MQSHR, is worthy of further discussion.

6.2.1.1 Recommendation

The assessment team recommends that MSHAC give further consideration to whether the MQSHR should be amended to include more specific requirements for consultation with workers on procedures, hazards, and controls.

6.2.2 Fitness

The assessment team received considerable feedback from interviewees, from all backgrounds, to the effect that the fitness provisions at Part 9, MQSHR were insufficient. Many of our interviewees argued that more needed to be said on, in particular, fatigue management and assessment; and psychological impairment.

6.2.2.1 Fatigue

With regard to fatigue, interviewees were looking for greater clarity of accountability for fatigue management; and, in some cases, more specific guidance on how fatigue should be monitored and assessed; and on what working hours and rest periods were acceptable. The following is a sample of the feedback received by the assessment team:

- 'Could we have something more on this? Where does our obligation start and finish? What if people lie to you? What if you have no daily control'?

- 'It would be a good idea to have clarity on accountability for fatigue – and it would also be good to have decisions on drugs or fatigue monitoring and testing based on expert opinion'.

- 'There are rigid rules for truck drivers on the open road, and yet we have none. We need to be more specific about rest breaks'.

- 'We need to be more explicit on boundary conditions eg a 16 hour shift then a minimum of 10 hour break, except in emergencies or if approved by Chief Inspector'.

- 'Too little is said about fatigue. There are an increasing number of people driving long distances'. There are some contractors working at 2 mines on different shift regimes'.

The assessment team notes that, at present, there are only three references to 'fatigue' in the MQSHR. Those references are set out below:

Section 9 Risk monitoring

(4) *If it is appropriate, having regard to the nature and level of a hazard present in the work environment, the monitoring must include 1 or more of the following things—*

(a) personal monitoring to decide a worker's level of exposure to the hazard;
Example—
monitoring a worker using a dosimeter or other instrument to measure the worker's level of exposure to noise

(b) self-monitoring to detect effects of the hazard;
Example—
self-recognition of physical symptoms of heat stress or fatigue

Section 86 Worker's self-assessment of fitness level

Each worker at the mine must periodically conduct a self-assessment of the worker's condition, including, for example, for effects of heat strain or fatigue, to decide if the worker is in a fit condition to carry out the worker's duties at the mine without creating an unacceptable level of risk.

Section 89 Work hours and rest breaks

A mine's safety and health management system must provide for controlling risk at the mine arising out of personal fatigue caused by excessive work hours or insufficient rest periods.

We note that s89 MQSHR will not apply to mines which are not required to have a SHMS.

The approach taken to fatigue in the MQSHR is in contrast to the considerably more detailed requirements in s42(2) CMSHR. That sub-section mandates that a mine's SHMS must, 'provide for the following about personal fatigue for persons at the mine: (a) an education program; (b) an employee assistance program; (c) the maximum number of hours for a working shift; (d) the number and length of rest breaks in a shift; and (e) the maximum number of hours to be worked in a week or roster cycle'. We emphasise here that we would not propose any wholesale importation of s42 CMSHR into the MQSHR. There are substantial problems with s42 CMSHR overall; and we have recommended significant change to the section. The fatigue specific components of the existing s42 CMSHR are mentioned only to indicate the variance in regulatory approach across the coal, and non-coal sectors.

It should be noted that neither the CMSHR, nor the MQSHR deal with accountability for fatigue experienced by mine workers on their journeys to and from work. In *Kerle v BM Alliance* [2016] QSC 304, a case involving an injury to a worker travelling home after his shift, Justice McMeekin observed:

> [109]… *it is the employer….who created the risk by the insistence on consecutive 12 hour night shifts with its consequent, and inevitable, fatigue. The risk thus emanates from the work activities. The risk of injury on the drive home is appreciably greater than it would otherwise have been but for the fatigue consequent on those activities.*

As we noted in our review of the coal mining safety and health legislative framework, in the context of Justice McMeekin's comments there is a need for the legislative regime to clarify how accountabilities for fatigue management should be apportioned.

In *Kerle* Justice McMeekin also made general observations concerning personal fatigue that are directly relevant to s89 MQSHR. In relation to the risk of injury and on the basis of expert evidence led at trial, Justice McMeekin at [81] also makes the following important observations that are particularly relevant to personal fatigue under s9(4)(b) MQSHR and s86 MQSHR:

> [81] … *There are three relevant observations. The first is that the full impact of fatigue is not well understood. The second lies in the fact that the fatigue produced by successive shifts, particularly night shifts involving the disruption of both the circadian rhythm and the "sleep-wake systems" spoken of by the experts called in the case, is not fully appreciated by the average lay person. The third is that individuals do not necessarily recognise when they are fatigued.*

As indicated, s 9(4)(b) MQSHR and s 86 MQSHR emphasise self-monitoring and self-assessment. Given the expert evidence to the effect that a fatigued person may not be at all well placed to assess their own fatigue levels; we would submit that ss 9(4)(b), and 86 MQSHR are unlikely to constitute adequate monitoring. In saying this, the assessment team is mindful that s87 MQHSA does provide for general fitness assessments; and that further guidance on fatigue risk management overall is provided in *QGN 16 Guidance Note for*

Fatigue Risk Management (2013). We do not consider, however, that this negates the view that too little is said in relation to fatigue in the MQSHR.

During our review of the coal mining safety and health legislative framework we received feedback to the effect that an expert group should be utilised to determine the most appropriate methods for monitoring and detecting fatigue, given that mine management and mine workers are very unlikely to any specific expertise in this regard. We recommended that CMSHAC and the Queensland Government give further consideration to the most appropriate means for determining methodologies to be used to detect fatigue.

6.2.2.2 Psychological impairment

Many of our interviewees also suggested that the MQSHR should be amended to delineate accountabilities for minimising, monitoring for, and responding to, psychological impairment. Those interviewees who took this view recognised that this was a difficult area to regulate; but suggested that it should nevertheless be the subject of further discussion. Some interviewees proposed that mines should be explicitly required to put in place systems to prevent and respond to psychological impairment as part of the SHMS. It should be noted that, during our review of the coal mining safety and health legislative framework we recommended that consideration be given to amending the CMSHR to provide greater detail in regard to how a coal mine's SHMS should deal with psychological impairment.

Other interviewees, while acknowledging a need for mines to be aware of mental health issues and implications; and provide support to those with mental illnesses and disorders; argued that mines should be left to determine their own approaches in this regard.

The assessment team has not been asked to construct new fitness provisions as part of this review. Nor would we wish to attempt to do so. Changes in this regard will require considerable prior discussion and expert consideration.

6.2.2.3 Recommendations

The assessment team recommends that MSHAC give further consideration to the issues raised in relation to fatigue, and psychological impairment. We note that it may be appropriate for MSHAC and CMSHAC to jointly determine a preferred approach.

6.2.3 Dust

Some of our interviewees argued strongly that the MQSHR needed to be augmented by clear provisions regarding: dust monitoring; action to be taken in the event of exceedances; penalties to be applied where dust levels are not reduced; and provision of dust monitoring records to workers, and penalties for failure to do so. Interviewees emphasised the dangers posed to worker health by dust, and gave a number of examples of alleged circumstances where workers were being repeatedly exposed to high dust levels. Once again, we would reiterate that we are not in a position to confirm or otherwise the veracity of these examples.

Interviewees did acknowledge that QGL02: *Guideline for Management of Respirable Crystalline Silica in Queensland Mines and Quarries* provided considerable guidance; but

nevertheless sought augmentation of the Regulation itself.

Consistent with our earlier comments, the assessment team notes that, in New South Wales 'Air quality, dust or other airborne contaminants' is an identified 'principal hazard' at minesites. There is a corresponding requirement for a PHMP to deal with this principal hazard; as well as stipulations regarding Health and Ventilation Control Plans. The assessment team believes this holistic approach has much to recommend it.

6.2.3.1 Recommendation

The assessment team recommends that MSHAC consider the adequacy of the existing provisions relating to dust, in the context of principal hazard management and control more generally.

6.2.4 Health surveillance

Some interviewees from varying backgrounds suggested that the MQSHR should be augmented with new requirements for health surveillance. These interviewees proposed the introduction of a new health surveillance scheme encompassing regular assessments of workers to determine whether they had been impacted by dust, or noise; and to track worker health over time. The assessment team notes that the existing s138 MQSHR does not deal with the concept of a comprehensive health surveillance scheme for all workers but, instead focusses on circumstances where an SSE 'reasonably believes, or ought to reasonably believe' that 'exposure to a hazard at the mine may cause, or result in, an adverse health effect' on an individual worker.

The assessment team notes Part 6, Division 2, of the CMSHR already provides for a universal coal mine workers' health scheme. During our review of the coal mining safety and health legislative framework, we received detailed proposals for substantive expansion of that scheme, in accordance with guidance from the International Labour Organisation (ILO). We recommended that CMSHAC give positive consideration to the proposals made.

Given the different regulatory approaches presently applied to the mining and quarrying sectors, the assessment team acknowledges that considerable further discussion may be required before a firm view can be reached about whether or not it is appropriate, or necessary, to introduce additional health surveillance requirements into the MQSHR.

6.2.4.1 Recommendation

That MSHAC give further consideration to the adequacy, or otherwise of existing requirements for health surveillance in the MQSHR.

6.2.5 Health risk assessment and control

During our interviews, we received some feedback to the effect that the MQSHR needed to contain more detail on health risk assessment and control. Similar issues were raised during our review of the coal mining safety and health legislative framework. We note that there is presently no requirement for sites to conduct health risk assessments, or to prepare a health

control plan (as is mandated under the NSW *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014*).[27] The International Council on Mining and Metals has provided guidance on what constitutes a good health risk assessment which could be utilised by the Queensland mining industry.

A full exposition of health risk assessment, and health control planning, is beyond the scope of this Report.

6.2.5.1 Recommendation

The assessment team recommends that MSHAC give further consideration to the inclusion of requirements for health risk assessments, and health control plans, in the MQSHR.

6.2.6 Mine fire warnings

During our interviews we were advised that managers were not necessarily alerting underground workforces to all mine fires. We were told that, instead, managerial discretion was used to determine if fires were 'serious' enough to inform workers about. Once again, we are not in a position to confirm the veracity or otherwise of these statements.

It was suggested that the MQSHR should be amended to clearly stipulate that an SSE must issue a warning to all underground workers whenever a fire, of any scope, was detected underground.

6.2.6.1 Recommendation

The assessment team recommends that MSHAC give further consideration to the suggestion made.

6.2.7 Pre-start checks

The assessment team were also advised that pre-start checks were not being done routinely across the industry. In addition, we were told that surface teleoperators of underground equipment had been instructed that there was no need to carry out pre-start checks on these vehicles. Once again, we are not in a position to confirm the veracity, or otherwise, of the points made. It was suggested that pre-start checks on all vehicles, including those operated remotely, should be mandated in the MQSHR.

6.2.7.1 Recommendation

The assessment team recommends that MSHAC give further consideration to the suggestion made.

---

[27] *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014* (NSW), s26.

7 Guidelines

7.1 General Observations

The assessment team sought interviewee comments on the content of each of the three Guidelines. In contrast to the level of feedback provided on the Recognised Standards during our review of the coal mining safety and health legislative framework, most interviewees had no particular views to offer on any of the Guidelines.

The assessment team did receive some comment to the effect that QGL03: *Guideline for Hazardous Chemicals* was excessively long, and 'hard to read'.

We were also advised that QGL02: *Guideline for Management of Respirable Crystalline Silica in Queensland Mines and Quarries* contained 'some timeframes that just can't be met'. (In this regard, our interviewee specifically nominated the 'requirement' in Section 3.2.4 QGL02 that 'within 28 days of exposure monitoring, the Occupational Hygienist shall provide the SSE a written report on the exposure monitoring'). For some, QGL02 was seen as 'not as clear as it could be'. Others found QGL02 accessible, and understandable.

The assessment team has also reviewed each of the Guidelines. We do not have any particular comments to make regarding their contents, beyond the general observation that while it is perfectly appropriate for a Guideline to reiterate requirements already stipulated in the MQSHA, and MQSHR; 'introducing' new mandatory requirements in a Guideline would be inconsistent with the status of Guidelines at law. A new requirement that is meant to be mandatory should be stipulated in the Act or Regulation.

The assessment team notes that there does not appear to be any requirement for Guidelines to be subject to periodic review. Consistent with our remarks in relation to Recognised Standards, we suggest that each Guideline should be reviewed by MSHAC every 5 years to ensure that its content remains current.

7.2 Recommendations

That the content of each Guideline be reviewed at least every 5 years.

8 Appendices

8.1 Summary of Recommendations

Fundamental changes

Acceptable Level of Risk
The concept of 'acceptable level of risk' in s26, and throughout the legislative framework, should be replaced with the 'reasonably practicable' concept from the *Work Health and Safety Act 2011* (Qld) (WHSA).
Restructure of Legislative Framework
A redistribution of 'operational' provisions from the MQSHA to the MQSHR should be undertaken. The inspectorate should be tasked with identifying any aspects in the Guidelines seen as mandatory, with a view to those aspects being reallocated to the MQSHR.

New provisions MQSHA

Additions to the Dictionary MQSHA
Definitions for the following terms should be added to Schedule 2, Dictionary, MQSHA: ▪ 'secure' and 'abandonment' – in the context of s9(1)(d) and s58. ▪ 'fossicking' ▪ 'due diligence' – in the context of s35. ▪ 'design' and 'manufacture' – in the context of s41. ▪ 'current' - in the context of s58. ▪ 'interfere' – in the context of s197.
Remote operations centres
A new section explicitly dealing with the obligations of remote operations centre dispatchers should be added to Part 3, Division 3, MQSHA.

Specific MQSHA provisions requiring amendment

Section 5A
Section 5A should be redrafted to state, in plain English, when respective Acts apply.
Section 9
The words 'contiguous with' should be removed from s9(1)(b) to aid clarity.
Section 10
Section 10 should be amended to: ▪ explicitly provide that sites under 'care and maintenance' are 'operations' for the purposes of the MQSHA. ▪ make clear that the construction and installation of telecommunications and electricity services by external providers does not fit within the meaning of 'operations'.
Section 11

Section 11(2)(c) should be amended to clarify whether it is intended to refer to 'river gravel', or all gravel.
Section 22
Section 22(1) should be amended to specifically deal with the appointment of contractor SSEs.
Section 23
The word 'authorise' should be replaced with the word 'appointed'.
Section 35
Reference to 'proper diligence' should be replaced with 'due diligence'.
Section 36
Section 36(2)(f) should be amended to read 'not to engage, without reasonable excuse, in wilful or reckless conduct that might adversely affect the safety and health of someone else at the mine'. Examples of 'wilful' and 'reckless' conduct should be given.
Section 41
The term 'etc' should be removed from the title of s41. Either 'distributors' of plant should be specifically mentioned in s41; or the definition of 'supplier' should be amended to encompass distributors.
Section 44
Section 44(1) should be amended to commence as follows: *'a person who provides a service **to** a mine has the following obligations…'* [emphasis added].
Section 60
Section 60 MQSHA should be amended to require that directives and reports are displayed at all entry points to the mine. The words 'or report' should also be added to the end of this section.
Section 92
Section 92 MQHSA should be amended to clarify that SSHR inspections would normally be conducted during an SSHR's shift at the mine.
Section 130
Section 130(2) should be amended to specify that 'an SSE should ensure that access for the purposes of this sub-section is not obstructed'.
Section 195
'As soon as possible' should be the term used in both s195(1) and s195(3) MQSHA.
Section 195A
'Worker type' should be a category of primary information listed under s195A(1).
Section 250
Whether children undertaking work in return for payment in gems fall within the scope of the s250 should be clarified in the MQSHA.
Section 254A
Section 254A should be replaced with the equivalent of ss 104 - 113 of the WHSA Qld.
NOHSC
The MQSHA and MQSHR should be updated to reference SWA, and SWA standards.

Specific MQSHR provisions requiring amendment

Section 7
Either: ▪ A Section 7(2)(e) should be deleted, or; ▪ B Section 7(2)(e) be should redrafted to read as follows: 'other relevant information reasonably available to the obligation holder, concerning risk analysis and mining operations'. The assessment team's preference is for option A.
Section 83
The example provided at s83(2) should be deleted.

Aspects requiring further policy consideration - MQSHA

'Small miners'
MSHAC should give further consideration to the inclusion of specific 'small miner' Parts in the MQSHA, and MQSHR. MSHAC should also consider whether it is appropriate or otherwise to provide greater prescription in the legislative framework for 'small miners'.
SHMS accountabilities and scope
MSHAC should give further consideration to the question of who should have accountability, or primary accountability, for the development of the SHMS. MSHAC should also consider whether the required scope of an SHMS under s55(2)(b) MQSHA can be more clearly delineated.
(Principal) Hazard Management Plans
MSHAC should give positive consideration to suggestions that the MQSHA and MQSHR be amended to incorporate requirements for principal hazard management planning. In addition, MSHAC should evaluate the applicability of NSW regulatory requirements regarding PHMPs and PCPs to the Queensland mining and quarrying sectors.
Section 9
MSHAC should consider whether it is appropriate to attach precise measurement to s9(1)(b).
Section 10
MSHAC should give positive consideration to refocussing s10 on 'mining activities' rather than operations. MSHAC should determine whether the term 'hard rock' should be replaced with 'rock'.
Section 11
MSHAC should give consideration to whether s11 currently captures all those sites that should be included within the meaning of the term 'quarry' for the purposes of the MQSHA.
Section 15
The question of whether or not the MQSHA needs to refer to both SWIs and procedures; and the ongoing appropriateness of using the term SWIs in the MQSHA, and SOPs in the CMSHA, should be further considered by MSHAC.
Section 22
The question of whether the SSE needs to be the 'most senior officer employed or otherwise engaged by the operator for the mine' should be discussed further by MSHAC, (possibly in conjunction with CMSHAC).

Section 34
MSHAC should give positive consideration to the SSE being specifically identified as the person who determines that 'another way' 'achieves a level of risk that is equal to or better than the acceptable level' under s34 MQSHA.
Section 38
MSHAC should further discuss the current balance of obligations between the operator, and the SSE. MSHAC should also consider whether s38 MQSHA needs to be amended to deal with the issue of offsite directions being given to the SSE by individuals without any specific obligations under the Act.
Contractors and Service Providers
MSHAC should further discuss who is meant to be captured by the terms 'contractor' and 'service provider'; with definitions of both terms being subsequently included in the MQSHA.
Section 47
MSHAC should give further consideration to the purpose of s47, with a view to determining how the section should be amended.
Section 49
MSHAC should discuss the points made by interviewees in relation to s49.
Section 50
MSHAC should discuss the purpose of s50. Amendments to the section to clarify specific areas of uncertainty should be made after the intent of the section as a whole has been examined.
Section 53
MSHAC should further discuss: ▪ Whether the term 'control and manage' requires any additional specification ▪ The possible introduction of a new requirement prohibiting directions being given to an UGMM about a 'technical matter' unless the person directing holds a first class certificate of competency (with 'technical matter' suitably defined). ▪ Whether a prohibition on an UGMM being appointed to two sites, by two different operators is required ▪ Whether s53(3) should be amended to specify that any sites where 10 or more persons work underground must have an UGMM with a first class certificate of competency.
Section 54
MSHAC should consider whether there is any need to amend s54 to remove the requirement for a temporary replacement to be appointed if an UGMM is 'absent from duty for more than 14 days'.
Section 54B
MSHAC should discuss whether there is any need to amend s54B to extend the timeframe before a person must be appointed to act in a ventilation officer's absence.
Section 58
MSHAC should discuss whether it would be appropriate to specify that additional detail be provided under s58(2). Positive consideration should be given to amending s58 to deal with the potential issue of mines being abandoned without submission of plans to the inspectorate.

Section 59
MSHAC should, as a matter of urgency, revisit the scope and purpose of the mine record with a view to clarifying s59(1). This re-examination could usefully be conducted in conjunction with CMSHAC. Access to the mine record under s59(4) should be considered subsequent to this discussion on mine record scope.
MSHAC
The Commissioner, MSHAC, and the Queensland Government should give further consideration to the matters raised in regard to the role and composition of MSHAC.
Section 84
MSHAC should consider whether it would be appropriate to amend s84(3) to provide that SSHRs could be elected to represent the various functional components of the mine.
Section 92
MSHAC should consider whether clarification of the term 'procedures' in the context of s92(1)(b); and definition of the term 'reasonable help' in s92(2); would be appropriate given recommendations to this effect in relation to s99 CMSHA.
Section 93
MSHAC should consider whether s93 should be amended to provide SSHRs with the power to make or request copies of documents.
Section 116
MSHAC should give further consideration to the question of whether DWRs should be able to enter a mine without giving 'reasonable notice'.
Section 125
MSHAC should give consideration to whether it is necessary to amend this section to stipulate that inspectors can conduct 'comprehensive investigations'.
Directives
MSHAC, and/or the Inspectorate, should review the standards applied across Part 9, Division 5, Subdivision 2 MQSHA; and consider further the proposed expansion in the range of available directives.
Section 195
MSHAC should further consider whether: ▪ Section 195(2) should be deleted; ▪ Schedule 1(5)(o) of the MQSHR should be amended to require SSEs to report any incident that an inspector or DWR considered to be a HPI; ▪ Penalties for failure to report HPIs should be increased.
Section 198
MSHAC should consider whether any amendment to this section, as proposed, is required.
Section 250A
MSHAC should consider whether s250A should be amended to allow persons under the age of 16 to operate or maintain plant under supervision. If any relaxation of the provision is contemplated; consideration should also be given to the appropriateness of making a similar adjustment to the CMSHA.
Worker number trigger points
The inspectorate should review worker number trigger points across the MQSHA and MQSHR with a view to determining whether further standardisation is appropriate.

Statutory positions
MSHAC should give further consideration to arguments for the creation of a geotechnical engineering statutory position. MSHAC should also consider, in the light of interviewee feedback, whether any other new statutory positions are required.
Supervisor obligations
MSHAC should give positive consideration to the introduction of a separate 'Obligations of supervisors' section into the MQSHA.
Inspector qualifications
The Queensland Government should consider stipulation of qualifications for inspectors and, as necessary, inspection officers, in the MQSHA.

Aspects requiring further policy consideration - MQSHR

Section 12
MSHAC members should discuss whether any particular issues have arisen in the interpretation of s12 MQSHR.
Section 36A
MSHAC should give further consideration to whether s36A should be augmented to require 2 trafficable egresses in additional circumstances.
Part 7, Hazardous chemicals and dangerous goods
The inspectorate should review Part 7 MQSHR, and QGL03, with a view to streamlining requirements regarding hazardous chemicals and dangerous goods.
Section 70
MSHAC should discuss whether s70(2)(h) should be amended to provide that decisions regarding re-entry be made after monitoring of gases, or after physical testing of the atmosphere.
Section 90
MSHAC should consider whether or not s90 should be amended to stipulate that a mine have toilets sufficient for both male and female workers at the mine.
Section 91
MSHAC should give consideration to amendment of s91 to require that hazards, controls, and the past safety history of the site be included in any mine induction.
Section 140
MSHAC should consider amending s140(2)(a) to read as follows: (2) *The site senior executive for the mine must ensure-* *(a) the person is given personal protective equipment that is both suitable and effective for the hazards associated with the workers' tasks; and for the hazards associated with the materials being used to carry out the task.*
Consultation requirements
MSHAC should give further consideration to whether the MQSHR should be amended to include more specific requirements for consultation with workers on procedures, hazards, and controls.
Fitness provisions
MSHAC should give further consideration to the issues raised in relation to fatigue, and psychological impairment. It may be appropriate for MSHAC and CMSHAC to jointly determine a preferred approach.

Dust
MSHAC should consider the adequacy of the existing provisions relating to dust, in the context of principal hazard management and control more generally.
Health surveillance
MSHAC should give further consideration to the adequacy, or otherwise, of existing requirements for health surveillance in the MQSHR.
Health risk assessment and control
MSHAC should give further consideration to the inclusion of requirements for health risk assessments, and health control plans, in the MQSHR.
Mine fire warnings
MSHAC should consider whether the MQSHR should be amended to clearly stipulate that an SSE must issue a warning to all underground workers whenever a fire, of any scope, is detected underground.
Pre-start checks
MSHAC should give further consideration to whether pre-start checks on all vehicles, including those operated remotely, should be mandated in the MQSHR.

Administrative issues

Guidelines
The content of each Guideline should be reviewed at least every 5 years.

8.2 Cases and Inquiries Consulted

Addinsall v Bell [2016] ICQ 002

Bell v Hendry [2014] ICQ 018

Comcare v Banerji [2019] HCA 23

Dalliston v Taylor [2015] ICQ 017

Edwards v North Goonyella Coal Mines Pty Ltd [2005] QSC 242

Grant v BHP Coal [2017] FCAFC 42

Harrison v President of the Industrial Court of Queensland [2016] QCA 89

Jetcrete Oz Pty Ltd v Conway [2015] QCA 272

MacPherson v Rio Tinto Coal [2005] QSC 120

Maryrorough Solar Pty Ltd v Queensland [2019] QSC 135

Monis v The Queen [2013] HCA 4

Osborne v Downer EDI Mining Pty Ltd [2010] QSC 470

Plaintiff M47/2018 v Minister for Home Affairs [2019] HCA 47

Queensland v Congo [2015] HCA 17

Rowe v Electoral Commissioner [2010] HCA 46

SAS Trustee Corporation v Miles [2018] HCA 55

Simonova v Department of Housing and Public Works [2019] QCA 10

Smith v The Queen [2017] HCA 19

Stanford v Stanford [2012] HCA 52

Sztal v Minister for Immigration and Border Protection [2017] HCA 34

Wardens Inquiry

Report on Accident at Moura No 2 Underground Mine on Sunday, 7 August 1994

Office of the State Coroner

Findings of Inquests

Inquest into the death of Jason George Elliott BLEE delivered on 10 September 2009

Inquest into the death of Wayne MACDONALD delivered on 9 September 2014

Inquest into the deaths of Malcolm MACKENZIE, Graham Peter BROWN and Robert WILSON delivered on 23 February 2011

Transcript of Proceedings

In the matter of an Inquest into the cause and circumstances surrounding the death of Roger Bruce BROWNE (09 February 2007, 06 March 2007)

In the matter of an Inquest into the cause and circumstances surrounding the death of Shane William DAVIS (21 March 2007)

Department of Natural Resources, Mines and Energy

Investigation Reports

Report into a fatality at Goonyella Riverside Mine on 5 August 2017

Report into a fatality at the Grasstree Coal Mine Middlemount, Queensland on 6 May 2014 16 May 2018

Report into a fatality at the Newlands Mine Coal Handling and Preparation Plant, Newlands, Queensland on 30 August 2016

8.3 Contributors

Our appreciation goes to the following persons who contributed information considered in the preparation of this Report.

Bernice Boucher
Brian Boucher
Trevor Brown
Joseph Carey
Phil Casey
Stephen Carson
Geoff Caton
Phil Cole
Mark Desira
Simon Delander
Julie Devine
Brian Devlin
Rob Djukic
Greg Doyle
Grant Egginton
Jason Elks
Kylie Fahey
Herman Fasching
Bob Fulker
Peter Gilligan
Phil Goode
Denis Hamel
John Hempseed
Cameron Hockaday
Rob Jackson
Aaron Johnstone
Dan Kelliher
Cassandra Koutouridis
Anton Kruger
Gavin Lawrence
Richard McKeown
Katie Ormonde
Joanne Payne
Nicholas Payne
Tony Peterson
Queensland Boulder Opal Association
Queensland Sapphire Miners Association
Mark Raguse
Murray Riches
David Smith
Daniel Van der Westhuizen
Matthew Walker
Russel Wilson
Maryann Wipaki