

# Review of Mine Management Competency Legislation

## The Mines and Works Inspection Regulations 2013

# Options Paper

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# REVIEW OF MINE MANAGER COMPETENCY LEGISLATION

## Options Paper

### Overview

South Australia regulates the appointment of competent mine and quarry managers through statutory certification requirements. The legislation that establishes these requirements is the *Mines and Works Inspection Regulations 2013*, committed to the Minister for Mineral Resources and Energy and administered by the Department of State Development, Mineral Resources Division.

The Department is undertaking a *Leading Practice Mining Acts Review* of the *Mining Act 1971*, the *Mines and Works Inspection Act 1920* and the *Opal Mining Act 1995*. The legislative requirements for the certification of competency of mine and quarry managers are a critical component of this review. This options paper provides information on the current arrangements in South Australia and seeks stakeholder's views on the most suitable measures for delivering competent management of mining operations at South Australia's mines.

The purpose of the review is to deliver a regulatory framework that is effective and efficient whilst ensuring that the accountability for the safe management of mines is clearly assigned and understood. This process is aimed at delivering improvements by providing clearer and simpler rules whilst maintaining enforcement practices to ensure that health and safety outcomes are achieved.

To assist stakeholders, this paper examines the current legislative requirements for mine and quarry managers in South Australia and includes an overview of how competency arrangements for mine managers is administered in other Australian jurisdictions.

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# 1. Introduction

## 1.1 Why is a review of mine manager competencies necessary?

A statutory requirement for the competency of mine managers has been in place in South Australia for more than 50 years. These requirements have remained largely unchanged over this period of time. However, the Australian resources sector has seen rapid advances in mining technology along with changed management practices to meet a growing global demand for commodities.

Against a backdrop of rapid developments in mining methods, management practices and regulatory approaches including nationally consistent work health and safety laws, it is timely to review the legislative requirements for mine manager competencies.

A key driver of this Review is to ensure that the current arrangements for regulating the competency of mine managers meet the needs of a modern mining sector in South Australia and those arrangements continue to deliver upon the objective of safer outcomes for mine and quarry workers now and into the future. This options paper provides information to assist in reviewing mine manager competency legislation in South Australia.

This independent options paper has been prepared on behalf of the Department of State Development Mineral Resources Division, to seek respondents' views on the current legislative requirements for the competency of mine and quarry managers and the extent of any impacts that may arise from possible changes to those requirements. This paper will inform the *Leading Practice Mining Acts Review* of the *Mining Act 1971*, the *Mines and Works Inspection Act 1920* and the *Opal Mining Act 1995*. More information on the review can be found here:

[http://minerals.statedevelopment.sa.gov.au/mining/leading\\_practice\\_mining\\_acts\\_review](http://minerals.statedevelopment.sa.gov.au/mining/leading_practice_mining_acts_review).

The outcome of that review will inevitably impact upon directions that may arise from this options paper. Notwithstanding this it is important to examine the provisions within the Regulations to assess their ongoing effectiveness.

This review will involve an examination of Part 2 Division 1 (Managers) of the *Mines and Works Inspection Regulations 2013*, as well as Schedule 1 of the Regulations. Schedule 1 details the required qualifications and the process for issuing certificates of competency for specified classes of work in mines and quarries. The review will consider both underground mine managers and quarry managers. A reference to a mine manager should be taken as a reference to both.

## 1.2 What is the objective of this review?

The starting point for this review is an acceptance of the fundamental principle that a person who is responsible for the management of mining activity must be competent. It is not intended that a legislative requirement for competent mine managers will be lost. The objective of this review is to consider how the competency requirement might be delivered in a more effective and efficient way.

To do this, the options paper will consider current legislative provisions for competency standards incorporating an assessment by Government officials and will investigate alternative statutory arrangements for ensuring the standards of management competence employed in South Australian mines and quarries achieve worker health and safety outcomes.

## 1.3 What is the expected outcome of this review?

It is well understood that the mining sector has changed and is changing rapidly. The industry is increasingly using a risk based approach to safety and continues to introduce new technology in mining methods. A legislative response to this dynamic environment needs to be sufficiently flexible to cater for changed circumstances. This is not taken to be a call for de-regulation. It is a call for a regulatory approach that can continue to support high safety standards in an efficient and equitable manner.

Mandating competency requirements for a particular class of worker has an impact on businesses, workers, regulators and interest groups. The expected outcome of this process is to seek industry views on a best practice approach which will deliver a streamlined, fit for purpose regulatory framework capable of delivering the identified outcome of safer workplaces.

## 1.4 Reviewing mine manager competency requirements - What are the key issues to consider?

The review addresses two key issues. These are:

- The competency requirements of a mine manager. This is asking what is meant by “competent” and how is this best dealt with in legislation; and
- Certification arrangements including the process involved in assessing an applicant for a mine manager’s certificate of competency. This is about why a certificate is issued and what value is added by a Government authority issuing a certificate.

This options paper will flag a number of issues that are central to any conversation about how the competency requirements for mine managers is to be set in law. The following matters will be raised as Discussion Points at section 7 of this paper. The list below is not exhaustive. It is included to assist readers in forming views about matters that are important

to this discussion and in preparing a response to those matters. The key issues for consideration in this review include:

- Are legislated requirements for competency, government assessment and certification for mine and quarry managers necessary?
- Is the threshold criteria for mine manager certification (e.g. 20 workers) relevant?
- Is the current regulation (Mines and Works Inspection Regulation) adequate? Are the current requirements within the Regulations *effective* i.e. do they achieve improved safety outcomes across the resources sector and are they *efficient* i.e. are they targeted, straightforward and easy to administer and comply with?
- Can the safety objective be delivered more effectively?
- Are the competency elements of experience and mandated qualifications appropriate? Do they need to be retained in legislation?
- Does certification of competency remain relevant and/or necessary?
- Is the Mines and Works Inspection Regulations the best vehicle for regulating a safety requirement?

## 2. About this options paper

This options paper provides an examination of the laws that are currently in place in the context of other relevant legislation such as the Work Health and Safety laws as well as arrangements that apply in other states and territories for similar positions to underground mine and quarry managers. The following parts of this Paper are set out as follows:

- Section 3 provides a brief background as to why competency standards are a legal requirement in many states throughout Australia;
- Section 4 reviews the legislative framework in South Australia. This will include a consideration of the current legislative requirements for mine managers in South Australia under the *Mines and Works Inspection Regulations 2013*.
- Section 5 of the paper examines Work Health and Safety requirements under Work Health and Safety laws administered by SafeWork SA to help understand the extent to which mine safety is covered in these laws;
- Section 6 provides a review of legislative requirements for competency standards and where relevant the certification of mine managers in other jurisdictions;
- Section 7 is an analysis of the SA legislative requirements against the background of SA's Work Health and Safety laws and interstate approaches. This section will raise specific Discussion Points seeking the views of interested parties.
- Section 8 will consider options for mine manager competency legislation including potential alternative statutory arrangements.

The information contained in this options paper will assist stakeholders in understanding the current and proposed arrangements for mine manager competencies in South Australia. It also will guide stakeholders to form a view on a preferred legal framework for delivering competent mine and quarry managers in this State.

### 2.1 Next steps

- The options paper will be appended to a broader Mines and Works Inspections Act discussion paper and released for public comment in late 2016.
- Consultation presentations will be held throughout the public comment period, where appropriate.
- Interested parties will have an opportunity to comment on the issues raised in this paper, and/or the broader Mines and Works Inspections Act discussion paper.
- Following consideration of the issues raised through consultation with key stakeholders on these matters (and all aspects of the *Leading Practice Mining Acts Review*), the Department will prepare draft legislative amendments for consideration by the Minister for Mineral Resources and Energy.

A template to assist stakeholders to respond to the discussion points in this paper is included at the end of this options paper as Appendix D. If it assists, it may accompany a

submission on the Mines and Works Inspection Act discussion paper. **In the interests of transparency, all submissions may be published online as part of the Review process.** Please advise if you wish for your submission to remain confidential.

### 3. Why are competency standards for mine managers set in law?

Mining work is potentially dangerous work. The Mining industry in Australia employs approximately 270,000 people (2% of the Australian workforce). Between 2000-01 and 2012-13 the number of workers compensation claims for serious injuries in the mining sector increased from 1,895 claims to 2,965 claims representing an increase of 56%. (This needs to be balanced against a significant growth in employment numbers over this period noting that the frequency rate actually declined). Over the period 2001- 2012, when compared with all other industry sectors, the mining industry had the highest median time lost for injured workers (7.8 working weeks) and the highest median workers compensation paid.<sup>1</sup>

Mining work involves complex tasks in dynamic and often unstable environments which can be highly hazardous. A combination of high risk work activities in a difficult environment can and has resulted in catastrophic outcomes for workers. Bringing together workers and machinery in this setting brings with it higher risks of injury and illness. The current legal requirements for mine safety are to a large extent a product of a history littered with tragic events. This is the case in relation to the safety legislation for mines in Tasmania. The Tasmanian laws (Mines Work Health and Safety (Supplementary Requirements) Act 2012 and Regulations have to some extent been shaped by the tragic deaths of miners at Renison Bell and Beaconsfield. Further comment on this will be provided at the review of the Tasmanian legislation.

While serious incidents have occurred in all types of mining, underground coal mining has experienced significant occurrences that have resulted in multiple fatalities. This has been a key driver for prescriptive legislative requirements, including statutory requirements for mine managers, in those jurisdictions (Queensland and NSW) where coal mining is prevalent. This history needs to be kept in mind when considering legislative arrangements in other states and territories throughout Australia.

Managing a mine or quarry involves a high level of understanding of particular work environments and related hazards, with specific and often unique characteristics which can change very quickly. Mining work requires careful planning and high level skills in coordinating resources to undertake multiple tasks.

It is important that workers and the community generally have the confidence that the people responsible for managing these activities are aware of their duties and have the competence

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<sup>1</sup> Source: Workers Compensation Statistics 2013-2014 Safe Work Australia



and skill to do so safely. Demanding experience, training and demonstrated capability of the people who manage this work is not surprising.

While it is unstated in the Regulations, the primary objective of establishing statutory requirements for the competence of mine managers is to ensure that dangerous workplaces are effectively managed and, as far as reasonably practicable, workers are not harmed or injured by the work they do. Mine manager competency is set in law to ensure that the work they manage is done safely.

## 4. The Legislative Framework

The relevant legislation governing the operation of mining including the management of a mine in South Australia is:

- *The Mines Works and Inspection Act 1920*; and
- *The Mines and Works Inspection Regulations 2013*

### 4.1 *The Mines and Works Inspection Act 1920.*

The Mines and Works Inspection Act was the primary instrument for mine safety legislation in South Australia. Its primacy however was somewhat diminished in the 1980s following the introduction of Occupational Health, Safety and Welfare legislation which adopted the Robens style approach to risk management which applies to all workplaces. The Occupational Health, Safety and Welfare legislation has a significant focus on the duty of all workplace participants to manage safety that is applicable to the workplace. The Occupational Health, Safety and Welfare Act was supported by Regulations which address obligations and control measures for hazards that are omnipresent in all workplaces.

While the provisions of the Occupational Health, Safety and Welfare legislation have to some extent subsumed the requirements under the Mines and Works Inspection Act, the Mines and Works Inspection Act establishes the legal framework for the operation of the mine. In particular the Mines and Works Inspection Act assigns particular responsibilities to the mine owner. The mine owner is defined in the Mines and Works Inspection Act as “any person who is the immediate proprietor or lessee or occupier of a mine, or any part thereof, and includes a contractor or tributor working therein.” The Mines and Works Inspection Act does not set out specific requirements for mine managers but establishes the authority of the regulations to do so.

### 4.2 *The Mines and Works Inspection Regulations 2013*

The Mines and Works Inspection Regulations provide the detail in relation to the duties of the mine owner and the responsibilities of the mine manager. The mine manager is defined in the Mines and Works Inspection Regulations as “the person who for the time being has the immediate charge or direction of mining operations and includes a temporary manager or other person appointed in accordance with these regulations to act in the absence of a manager.”

Regulation 4 of the Mines and Works Inspection Regulations requires that where 10 or more people are to work at a mine in a 24 hour period, the mine owner must appoint a suitable person who holds the appropriate qualification as a manager of the mine.

The appropriate qualification (depending on the number of people working at the mine) is a First or Second Class Manager's certificate. A Guideline for Persons Applying for a Underground Mine or Quarry Manager's Certificate of Competency indicate that the Chief Inspector of Mines has the responsibility of assessing applications for mining and quarry manager's certificates. An overview of the legislative requirements is as follows:

- Where a mine or quarry employs a defined number of workers, a manager (a suitable person who holds the appropriate qualifications) must be appointed by the mine owner. The number of workers determines the particular qualification that must be held, for example a first class or second class certificate. A 1<sup>st</sup> class certificate is required if 20 or more persons are working at the mine in any period of 24 hours. If between 10 and 19 persons are working at the mine in any period of 24 hours a 2<sup>nd</sup> class certificate (or a 1<sup>st</sup> class certificate) is required.
- A person seeking to obtain a certificate as a mine/quarry manager must satisfy the Chief Inspector that he or she is a fit and proper person.
- The applicant must be at least 25 years of age.
- In the case of 1<sup>st</sup> and 2<sup>nd</sup> class certificates the person must have achieved 3 years practical experience.
- In the case of 1<sup>st</sup> and 2<sup>nd</sup> class certificates the person must hold appropriate qualifications. In the case of 1<sup>st</sup> class certificates this must be a degree or diploma in mining engineering from a tertiary institution.
- In all cases the person must pass examinations set by the Chief Inspector, on mining law, environment and occupational health and safety.

The Mines and Works Inspection Regulations contemplate that a different class of certificate will be required in certain circumstances. By way of example a Restricted Certificate may be issued to a particular mine or quarry site or a particular class of mine or quarry such as a sand mine. A Temporary Certificate can be granted for a specified time and/or the Chief Inspector may grant a special Permit to act as a manager of a mine where less than 10 people are working. In all these situations the Chief Inspector will consider each case on its merits and may take the relevant course of action to issue a particular authorisation if satisfied that the person has sufficient practical experience to undertake the required functions.

While the statutory certification process covers a number of certificate classes, this options paper focusses on the First and Second Class Mining and Quarrying Manager's certificates. The Discussion is however, intended to cover all classes of work that fall within the scope of a statutory requirement to hold a certificate as an authority to operate as a manager.

A summary of the particular classes of manager and the legislative requirements for the qualifications of the manager of a mine or quarry is as follows:

Figure 1 – SA Mine Manager Certificate Requirements

Mining		Quarrying	
Certificate class	Qualifications	Certificate Class	Qualifications
<p>First class underground mine manager's certificate.</p> <p>A 1<sup>st</sup> class certificate is required if 20 or more persons are working at the mine in any period of 24 hours.</p>	<ul style="list-style-type: none"> <li>○ 3 years practical experience in underground mining.</li> <li>○ Holds a degree or diploma in mining engineering from a university or tertiary institution in Australia (or from another education body recognised by the Chief Inspector.)</li> <li>○ Has passed a written examination in mining law, environment and occupational health and safety set by the Chief Inspector.</li> </ul>	<p>First class quarry-manager's certificate.</p> <p>A 1<sup>st</sup> class certificate is required if 20 or more persons are working at the quarry in any period of 24 hours.</p>	<ul style="list-style-type: none"> <li>○ 3 years practical experience in quarrying.</li> <li>○ Holds a degree or diploma in mining engineering from a university or tertiary institution in Australia (or from another education body recognised by the Chief Inspector.)</li> <li>○ Has passed a written examination in mining law, environment and occupational health and safety set by the Chief Inspector.</li> </ul>
<p>2<sup>nd</sup> - class underground mine manager's certificate.</p> <p>If between 10 and 19 persons are working at the mine in any period of 24 hours a 2<sup>nd</sup> class certificate (or a 1<sup>st</sup> class certificate) is required.</p>	<ul style="list-style-type: none"> <li>○ 3 years practical experience in underground mining.</li> <li>○ Holds qualifications considered by the Chief Inspector to be sufficient for the management of an underground mine where up to 19 people may work.</li> <li>○ Has passed a written examination in mining law, environment and occupational health and safety set by the Chief Inspector.</li> </ul>	<p>2<sup>nd</sup> – class quarry manager's certificate.</p>	<ul style="list-style-type: none"> <li>○ 3 years practical experience in quarrying and has passed the examinations conducted by the Chief Inspector.</li> </ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> <li>○ Has the experience and holds qualifications accepted by the Chief Inspector as being equivalent to the experience and qualifications noted above.</li> <li>○ Has passed a written examination in quarrying, mathematics, explosives and quarry machinery.</li> </ul>
<p>Restricted Certificate.</p> <p>The Chief Inspector</p>	<ul style="list-style-type: none"> <li>○ Has passed a written examination in</li> </ul>	<p>Restricted Certificate</p> <p>The Chief Inspector</p>	<ul style="list-style-type: none"> <li>○ Has passed a written examination in</li> </ul>

<p>may issue a restricted certificate if satisfied that the applicant is qualified by experience and knowledge to manage a mine of a specified class but is not satisfied that the applicant is entitled to an ordinary certificate.</p>	<p>mining law, environment and occupational health and safety set by the Chief Inspector.</p> <ul style="list-style-type: none"> <li>○ A restricted certificate must contain a written statement of the particular mine that the holder of the certificate is entitled to manage.</li> <li>○ The certificate is only for the purposes of the mine indicated on the certificate. a</li> </ul>	<p>may issue a restricted certificate if satisfied that the applicant is qualified by experience and knowledge to manage a mine of a specified class but is not satisfied that the applicant is entitled to an ordinary certificate. (Note: the regulation does not specify quarry – it only mentions “mine”)</p>	<p>mining law, environment and occupational health and safety set by the Chief Inspector.</p> <ul style="list-style-type: none"> <li>○ A restricted certificate must contain a written statement of the particular quarry that the holder of the certificate is entitled to manage.</li> <li>○ The certificate is only for the purposes of the quarry indicated on the certificate</li> </ul>
<p>Temporary Certificate</p> <p>If expedient to do so, whether or not the person is qualified for a permanent certificate, the Chief Inspector may issue a temporary certificate.</p>	<ul style="list-style-type: none"> <li>○ Has passed a written examination in mining law, environment and occupational health and safety set by the Chief Inspector.</li> <li>○ The certificate is in force for the period specified by the Chief Inspector.</li> </ul>	<p>Temporary Certificate</p> <p>If expedient to do so, whether or not the person is qualified for a permanent certificate, the Chief Inspector may issue a temporary certificate.</p>	<ul style="list-style-type: none"> <li>○ Has passed a written examination in mining law, environment and occupational health and safety set by the Chief Inspector.</li> <li>○ The certificate is in force for the period specified by the Chief Inspector.</li> </ul>

The Mines and Works Inspection Regulations impose strict requirements on the appointment of mine managers. A person applying for a certificate to be a mine manager must pass a number of ‘tests’, not the least of which is demonstrated practical experience, formal qualifications and an examination set by Government officials. Add to this the minimum age requirement and the fit and proper person test and there are a number of hurdles that need to be overcome before a person can obtain a certificate of competency which allows the person to manage a mine or quarry.

For the purposes of this options paper it is important to revisit the two key issues identified in the Introduction and that is the competence of the person and the process involved in validating that competence.

### 4.3 When is a mine manager competent?

The Mines and Works Inspection Regulations (Schedule 1 Part 1) establish the following benchmarks for the issuing of a certificate. The prescribed requirements provide the Chief Inspector with a number of criteria as evidence of competence. The criteria are as follows:

- Practical experience in underground mining (or quarrying) for not less than 3 years, including a minimum amount of time working in relevant mining activities (as set out in the Guidelines); and
- A prescribed qualification e.g. a mining engineering degree or diploma or equivalent; and
- Satisfactorily completing a test set by Departmental officers on mining law, environment and occupational health and safety.

The Mines and Works Inspection Regulations (Schedule 1 Part 1 (7) (b) and (c)), also establish other elements which must be achieved before a certificate can be issued. These are:

- The person must be at least 25 years of age; and
- The Chief Inspector is satisfied that the person is a fit and proper person to hold a certificate.

#### 4.4 The process of issuing a certificate.

The Chief Inspector of Mines must be satisfied that the certificate being applied for is appropriate and that the person meets the relevant experience and qualification requirements. The Chief Inspector has the responsibility of assessing applications and is also responsible for the setting and marking of examination papers in relation to the granting of these certificates.

The process requires a person to complete an application (on the prescribed form) providing evidence of the elements noted above (experience and qualifications). Every applicant who has their application approved is required to undertake the mining law examination set by the Chief Inspector. The Chief Inspector of Mines makes the final decision as to what type of certificate is suitable.

The fee for this process includes an Application Fee of \$28.75 and a certificate issue fee of \$45.00. The Certificate is issued for life.

The assessment process and the granting of certification was formerly the responsibility of the Board of Examiners. The Board was abolished in 2013 following the completion of the South Australian Government Review of Boards and Committees. As noted above, these tasks are now undertaken by the Department of State Development Mineral Resources Division under the direction of the Chief Inspector of Mines.

The safety objective of the statutory requirement for mine managers is not clearly stated in the Mines and Works Inspection Act. However, protecting workers against harm to their health, safety and welfare is an explicit requirement of the *Work Health and Safety Act 2012* and the *Work Health and Safety Regulations 2012*. The SA Work Health and Safety laws apply to all workplaces without exception. Similarly the Work Health and Safety legislation

recognises corresponding laws. The Mines and Works Inspection legislation is a corresponding law and as such the obligations established under that law is recognised in the Work Health and Safety laws.

The operation of the Work Health and Safety legislation in mines and the potential overlapping or interrelated requirements of the Work Health and Safety legislation with the Mines and Works Inspection legislation needs to be considered. In particular it is necessary to consider whether the Work Health and Safety laws establish a requirement for mine managers to be competent and if so the extent to which this is adequate.

## 5. Work Health and Safety Act and Regulations

An objective of the competency requirements (and related certification) of Mine Manager's is to deliver safe outcomes for workers at mine sites in South Australia. This objective is not clearly stated in the Mines and Works Inspection Regulations. The safety expectation is however embedded in the requirements outlined in the Regulations. While the Mines Regulations are silent on this issue, there is an obvious connection between the requirement for safe work in mines and the work health and safety legislation in South Australia. The Work Health and Safety laws establish an overarching obligation on all workplaces to ensure the safety of workers and others. Work health and safety legislation in South Australia is administered by SafeWork SA.

### 5.1 The Work Health and Safety Act 2012

The Work Health and Safety Act establishes the duties held by people who can influence a safety outcome in the workplace. This is to say the Work Health and Safety Act identifies who is responsible for work place safety. In explaining who has a work health and safety duty the Work Health and Safety Act casts a wide net. The duty to ensure the safety of people at work rests with the person conducting the business or undertaking (PCBU). This can be any person (or undertaking) who can influence a safety outcome. This is a key point in that it reinforces the view that if a person can in any way influence the health and safety of people at work, then they have a duty, as far as reasonably practicable to ensure that people are not injured or harmed by the work they do. Ensuring that people are competent to undertake certain tasks is intrinsic in the broader obligation to ensure that people are not injured by the work that they do. This view is supported by a considerable body of case law where responsible entities have been found guilty of failing their duty of care by allowing people without the requisite competence or experience to undertake work.

### 5.2 The Work Health and Safety Regulations 2012

The Work Health and Safety Regulations expand on the duties identified in the Work Health and Safety Act by describing particular control measures which must be applied to protect people at work from the risk of harm. The Work Health and Safety Regulations explain what a duty holder needs to do to comply with the legal obligation to ensure the safety of workers and others.

A significant number of the Work Health and Safety Regulations have direct application to mining work (noise, manual tasks, airborne contaminants, hazardous atmospheres, emergency plans, risk management, hazardous plant and hazardous substances to name a few). Chapter 10 of the Work Health and Safety Regulations applies specifically to mining. SafeWork SA has a Mine Safety Unit with specialist inspectors responsible for regulating safe work practices in South Australia's mines.



The mining chapter of the Work Health and Safety Regulations (Chapter 10) is a product of extensive work undertaken by the National Mine Safety Framework Steering Group (NMSF) 2006 - 2013. The NMSF was a tripartite forum responsible for developing model safety regulations to be applied by all states and territories. The mining chapter of the Work Health and Safety regulations adopted in SA is based on the NMSF model. These regulations incorporate far reaching obligations on the mine operator to ensure that risks associated with mining work are suitably controlled. Requirements in relation to the development and implementation of Safety Management Systems and Principal Hazard Management Plans warrant particular mention.

The practical effect of these requirements is that the mine operator must develop an operational plan for the mine within which the operator must identify all key hazards that are a feature of that particular mine. The plan must incorporate the measures that will be taken to control those hazards.

The Work Health and Safety regulations establish these key principles which must be applied in every mine. The mine operator must:

- develop and implement a safety management system for the mine; and
- develop and implement a principal mining hazard management plan which identifies the hazards that are particular to that mine and the control measures that will be applied; and
- develop and implement controls for activities associated with the operation of the mine including the movement of mobile plant; and
- manage air quality and ventilation;
- prepare an emergency management plan; and
- implement specific controls for the operation of underground mines.

In terms of the legal duties prescribed in legislation, the operation of a mine involves a number of parties. For the purposes of this discussion, the mine owner and the mine manager are the relevant duty holders within the Mines and Works Inspection legislation. It is helpful to understand which of these parties has a duty under Work Health and Safety laws in order to appreciate if there are overlapping or duplicate obligations across the two sets of law.

To do this it is useful to clarify where the mine owner and the mine manager fit into Work Health and Safety legislation because these terms are not used in either the Work Health and Safety Act or the Work Health and Safety Regulation. The Work Health and Safety Regulations use the terms “mine holder” and “mine operator”.

The mine holder is defined in the Work Health and Safety Regulations as the person conducting a business or undertaking (PCBU) with control over a right or entitlement to carry out mining operations if a mining authorisation is required for carrying out those operations. A mining authorisation means a lease, claim, tenement, licence, permit or other authority

issued under the Mining Act. On this basis the “mine holder” in Work Health and Safety law is for the purpose of this discussion taken to be equivalent to the “mine owner” in the Mines Works and Inspection legislation.

Under Work Health and Safety law the mine operator is the mine holder unless the mine holder appoints a person to be the mine operator. The mine holder of a mine may appoint a person to be the mine operator only if the mine holder authorises the person to have management or control of the mine and to discharge the duties of the mine operator under the Act.

The extent to which the mine operator is the mine manager varies. In some situations, mostly opal mines and small individual quarry operations, the mine operator will be the mine manager. In most cases, the mine operator may have responsibility for the overall coordination of mining operations while the mine manager will have more focussed responsibility for managing a particular function at the mine e.g. underground mining operations. In this case, under Work Health and Safety laws the (underground) mine manager would have responsibilities as a worker rather than as a mine operator.

This does not however, relieve the mine operator of the responsibility to appoint a “competent” mine manager. Work Health and Safety Regulation 622, requires that the safety management system of the mine sets out the management structure of the mine including competency requirements for positions in the structure. The mine operator must prepare the safety management system for the mine. To this extent the Work Health and Safety Regulation requires the mine operator as the responsible entity, to state the competency requirements for the various positions that make up the management structure of the mine.

In summary, the duties of a mine owner and a mine manager in the Mines and Works Inspection legislation are captured in the Work Health and Safety legislation as the mine holder and to some extent at least as the mine operator. The Work Health and Safety Regulations do not specify the qualifications or experience that is required of a mine manager nor is there any requirement in the regulations to certify a manager as competent.

The Work Health and Safety duties imposed on mine owners and mine managers (to the extent that they are mine operators) are far reaching. Moreover the penalties for non-compliance are substantial. There are three categories of penalties under the Work Health and Safety Act. For a body corporate these range from \$500,000 (Category 3) to \$3,000,000 (Category 1). For an individual committing an offence under the Work Health and Safety Act the penalties range from \$50,000 (Category 3) to \$300,000 or 5 years imprisonment or both (Category1). The penalties under the regulations range from \$3,600 for an individual to \$30,000 for a body corporate for breaches of each regulation which attracts a penalty.

A person who contravenes or fails to comply with a provision of the Mines and Works Inspection Regulation is subject to a penalty of \$1,000.

The primary difference between the obligations established under the Mines and Works Inspection legislation and those under the Work Health and Safety laws is that the former sets up an administrative regime which gives attention to evidence of the competence of the individual managing the mine while the latter gives attention to the health and safety outcomes that the person operating the mine must achieve.

The Mines and Works legislation defines the benchmark of demonstrated competence for people in charge of a mining operation while the Work Health and Safety laws prescribe what that person must do to deliver safe outcomes for the mining operation. The two are not incompatible given that the objective of both sets of laws is broadly similar. In fact there is a logical connection between the two requirements which is not immediately obvious given that they sit in two different legislative instruments administered by two different inspectorates.

Figure 2 - Comparison of Work Health and Safety and Mines Legislation Objectives

Mines and Works Inspection Legislation		Work Health and Safety Legislation	
Objective	Deliver safer outcomes for workers engaged in mining activities on mine sites.  Note: This is not stated in the Regulations but is implied in the requirements.	Objective	Securing the health and safety of workers and workplaces through the elimination or minimisation of risks arising from work.
How	Government agency to assess and certify the competence of the underground mine manager	How	Systematic management of all risks to health and safety arising from (mining) work.

A comparison of duty holders under the Mines and Works Inspection Regulations and the Work Health and Safety Regulations is attached as Appendix A. Appendix A reaffirms a view that the Mine Holder and the Mine Owner are equivalent duty holders in terms of their position in the management structure of mining operations. The duties of the Mine Operator in the Work Health and Safety Regulations encompass the duties of the Mine Manager. The Work Health and Safety Regulations require the Mine Operator to describe the competencies of various people in the management structure which may include the mine manager whilst noting that the competencies of the mine manager are not prescribed.

In addition to the broader obligation to ensure that people are not harmed at work, the Work Health and Safety Act prescribes a particular duty for a person conducting a business or undertaking who has management or control of the workplace. The person with management or control of a workplace must ensure, so far as reasonably practicable, that the workplace, the means of entering and exiting the workplace and anything arising from the workplace are without risks to the health and safety of any person.

## 6. Legislative requirements in other jurisdictions

Mining in Australia and throughout the world has experienced catastrophic events involving multiple deaths. The mining industry has a long history of poor safety outcomes for workers. Serious incidents, many of which have involved fatalities have influenced the regulatory environment. Current regulations in all states and territories have to some extent been shaped by these experiences. A number of Inquiries into mining tragedies (Moura, Gretley and Beaconsfield) have flagged management competence as a key issue in safety performance.

This was the case in the coronial inquiry into three fatalities at the Renison Bell mine in Tasmania. In referring to a book by Professor Neil Gunningham, the Coroner noted that Gunningham observed that the Tasmanian legislation at the time (1995 Occupational Health, Safety and Welfare Act) “lacked adequate provisions for Occupational Health, Safety and Welfare management systems, provisions specifying key positions within the mine management and supervision structure, provisions specifying safety and health policy for a mine and a variety of other mine specific requirements.”

It is worth noting that the tragic events in Queensland (Moura) and NSW (Gretley) were in coal mines. Coal Mining introduces a significant number of additional hazards and the regulatory regime in these jurisdictions in particular has evolved from the higher risks associated with this type of mining.

A number of occupations within the mining industry are considered to be safety critical. Essentially the roles and functions undertaken by these people are so important to the safe operation of the mine that several states and territories have established mandatory requirements for these positions. These requirements have often been shaped by events within those jurisdictions and together with different types and volumes of mining activity, local laws have evolved over time. This has resulted in legislative variations and differences across the nation. Variations in statutory requirements for mine managers and other safety critical positions in mines has meant that a person's qualifications obtained in one state are not automatically accepted in another even though the person is performing reasonably equivalent work.

This situation presents barriers to the mobility of labour and adds unnecessary cost to workers and employers. The NMSF Steering Group identified this as a key issue impacting on the competitiveness and efficiency of the mining industry in Australia. In addition to developing harmonised laws for mine safety the NMSF Steering Group embarked upon a programme of work to secure agreement from all stakeholders on the minimum acceptable competency standards to facilitate the free movement of specified classes of workers throughout Australia.

This has not been achieved to date although there is ongoing work to reach agreement on the competency standards expected of critical positions in mining operations.

It is helpful to consider how states and territories are currently addressing the issue of mine manager competencies. It should be noted that some jurisdictions (NSW and Queensland) have a number of statutory functions in addition to mine managers. The focus of attention for this options paper is underground mine manager (and quarry manager) competencies. With that in mind this Paper has endeavoured to as far as possible, identify those positions in other states and territories that are broadly equivalent to an underground mine manager in SA. By way of example, NSW and Queensland have extensive underground coal mining operations as well as underground metalliferous mining. For the purpose of comparison, only the certification requirements for underground metalliferous mining have been considered.

There is general agreement that the person in charge of mining operations must have a sound understanding of the type of work being undertaken, the hazards associated with the work and the risks involved. Furthermore managers must understand the control measures that are necessary to ensure the safety of the people doing that work. Accordingly most jurisdictions, and especially those with high volume mining activity have established statutory requirements for competency and in some cases the certification of safety critical positions such as a Mine Manager.

While the terminology and regulatory approach may differ slightly from state to state, there are statutory requirements for the competency of underground mine managers (metalliferous) in South Australia, Western Australia, Queensland, NSW, and Tasmania.

Work safety in mining is legislated under different instruments across the nation and in some cases is administered by different government agencies reporting to Minister's other than those responsible for general workplace safety. Appendix B provides an overview of the legislation covering mine managers (where it is required) as well as more general work health and safety requirements for mines given that some jurisdictions operate under Work Health and Safety legislation only and some apply Work Health and Safety laws in addition to mining specific legislation.

For those states that do have mine specific legislation and require statutory certification for mine managers (WA, Qld, NSW, SA) the following key principles apply:

- Minimum age requirements – ranging from 21 in NSW to 25 in WA, Queensland and South Australia; and
- Minimum acceptable tertiary qualifications – generally a mining related engineering degree or a diploma or equivalent; and
- Defined types and periods of experience; and
- Fit and proper person; and

- Additional evidence based on an examination linked to mining law, safety and specific mining tasks. The examination is usually set and conducted by a separate Board of Examiners and may be a written exam and an oral exam.

Certificates of competency are issued by the government agency. In NSW, WA and Queensland, certificates are issued by or on behalf of a Board of Examiners who have either approved the application or referred the application to the Chief Inspector for the issuing of a certificate. This was the case in South Australia although the Board of Examiners has been removed and certificates are now issued by the Chief Inspector.

In the remaining jurisdictions, NT, Victoria, Tasmania and the ACT do not issue certificates of competency. SA, NT, Victoria, Tasmania and the ACT do not have Boards of Examiners.

A more detailed description of the competency requirements and statutory certification arrangements in other states and territories is as follows:

## 6.1 Western Australia

The Government of Western Australia has established legal requirements for a person who is to undertake the role of an underground mine manager. The relevant legislation for this is the *Mines Safety and Inspection Act 1994* (the Act) and the *Mines Safety and Inspection Regulations 1995* administered by the Department of Mines and Petroleum Resources Safety.

A key object of the Act, among other things is to promote, and secure the safety and health of persons engaged in mining operations; Section 35 of the Act requires the principal employer of a mine to nominate a Registered Manager who then appoints a suitably qualified person to undertake particular tasks such as an underground mine manager.

Section 43(A) of the Act prescribes the functions of an underground mine manager as being responsible for the “immediate direction and control on a daily basis of the underground operations of the mine.” Similar functions apply to the manager of a quarry.

Section 48 of the Act allows for the establishment of a Board of Examiners. The functions of the Board of Examiners is “to examine in accordance with the regulations, the qualifications, experience and character of applicants for certificates of competency and issue such certificates where appropriate.” Western Australia has separate Boards for underground and quarry operations, mine surveyor and winding engine driver certificates and the qualifications and experience requirements for each certificate class is currently prescribed.

The *Mines Safety and Inspection Regulations 1995*, (the Regulations), expand upon the requirements of the Act. The Regulations set out the specific requirements which must be met for the issue of a first class mine managers certificate. These are:

- The applicant must hold a Degree of Bachelor of Engineering in Mining from any Australian University; or
- such other qualification as the Board may in any case consider to be equivalent to the degree;
- has passed a separate examination set by the Board requiring a knowledge of mining law;
- has attained the age of 25 years;
- has had practical experience in or about a mine for a period of not less than 5 years, of which period at least 3 years has been general underground mining experience of a nature acceptable to the Board;

In summary, Western Australia has established legal requirements which define the minimum standards acceptable to undertake the role of an underground mine manager. A Board of Examiners is in place to administer this process. The Board is responsible for assessing applications against the criteria detailed in the Regulations. The Board is also responsible for setting and conducting examinations both written and oral, although the oral component will depend on the class of certificate that is applied for eg a First Class Mine Manager is a written test only.

If an applicant successfully meets all the criteria, the Board approves the issue of a Certificate of Competency. A person cannot operate as an Underground Mine Manager in WA without a certificate of competency issued by the WA Board of Examiners.

The Department has prepared examination papers for each class of certificate and these are reviewed by the Board to ensure that the questions are relevant to current legislation and modern mining practices.

WA has issued 1,291 certificates over the past 5 years at an average of 258 certificates per year across all certificate classes including First Class Mine Manager, Underground Supervisor and Quarry Manager. Certificates do not have an expiry date. WA applies the principles of mutual recognition and will accept certificates of competency from Queensland, NSW, SA, and NZ for the issue of a certificate to undertake equivalent work. No further assessment is required.

The Department of Mines and Petroleum is currently reviewing the Mines Safety and Inspection Act and the Regulations. It is proposed that the existing laws are replaced by a Work Health and Safety (Resources) Act which covers all resource activities including petroleum, gas and mining. The Act will be supported by an accompanying Work Health and Safety (Resources) Regulation which will have sections for each of the relevant resource areas. The new legislation is expected to commence by the middle of 2017. Further information on the proposed reforms can be found at the following:

<http://www.dmp.wa.gov.au/Dangerous-Goods/What-is-involved-in-safety-6300.aspx>

<http://www.dmp.wa.gov.au/Dangerous-Goods/What-is-the-Ministerial-Advisory-6539.aspx>

## 6.2 Tasmania

Mine safety in Tasmania is regulated through the Work Health and Safety Act and accompanying Regulations. Mines are taken to be a workplace and as such must comply with the provisions of the prevailing work health and safety legislation. In addition to the general duties established under the Act the Tasmanian Government passed the *Mines Work Health and Safety (Supplementary Requirements) Act 2012* and the *Mines Work Health and Safety (Supplementary Requirements) Regulations 2012*.

These new legislative instruments provide additional controls to those imposed by the Work Health and Safety laws. The object of the supplementary requirements is to further assist in securing the health and safety of mine workers, and other people exposed to risks arising from mining operations, through the implementation of health and safety measures, specific to mines and mining operations. The Supplementary Act is incorporated in and should be read together with the Work Health and Safety Act as a single Act.

The Supplementary Act reaffirms the duties established in Work Health and Safety laws noting that the primary duty holders in mining operations are the Mine Holder and the Mine Operator. However, the Tasmanian laws (Supplementary Act and Regulations) introduce an additional duty holder and that is the Site Senior Officer. If the mine operator is natural person then that person may be the Site Senior Officer, provided he or she satisfies the requirements of the Site Senior Officer which includes holding 'appropriate qualifications'.

A site senior officer must (as far as reasonably practicable and in relation to matters over which he or she has capacity to control or influence control) ensure that the mining operations or the state of the mine do not adversely affect the health or safety of any person. The site senior officer is taken to have responsibility for the day to day operations of the mine. In this sense the position is broadly equivalent to a mine manager in other jurisdictions including South Australia. The Tasmanian legislation specifies certain requirements for the site senior officer and these are:

- the person is a natural person
- the person has appropriate qualifications which are taken to be an appropriate background, experience and competence, taking into account:
  - the level of risk to health and safety arising from the mining operations; and
  - the size of the mine; and
  - the technical expertise available to the site senior officer at the mine and
- any requirements specified in regulations including qualifications, training, background, experience, knowledge and understanding.

Although the Site Senior Officer is taken to have operational control of the mine site the Regulations (R38(1)) state that the mine operator at an underground mine may appoint a person who holds a university degree in mining engineering or an equivalent qualification to



assist the site senior officer. Where the total number of working hours at the mine is greater than 10,000 hours per month, the site senior officer is required to hold:

- risk management training or relevant experience to the satisfaction of the Chief Inspector; and
- if a person with the relevant degree has not been appointed to assist the Site Senior Officer, then the Site Senior Officer involved in underground mining must hold a university degree in mining engineering or an equivalent qualification; and
- The Chief Inspector may publish qualifications which are taken to satisfy the requirements of the regulations, without affecting his or her capacity to determine the requirements on a case by case basis.

#### *Summary of Tasmanian Requirements re competent persons.*

The legislative framework for mine safety in Tasmania is based on the national model Work Health and Safety laws as well as supplementary mine safety legislation that has been developed in Tasmania and is specific to mining activity in that state. The variations and additions to the national model laws have most likely been influenced by the findings of Coronial Inquiries into incidents resulting in fatalities at Renison Bell and Beaconsfield. As noted earlier there was an expressed view that the previous legislation lacked focus on risk management, key positions within the management structure and insufficient mine specific requirements. These matters have been addressed in the revised legislation. By way of example, the site senior officer responsible for managing underground mining must meet certain criteria including a Mining Engineering degree in situations where the number of working hours at the mine exceeds 10,000 hours (unless a person with a mining engineering degree or equivalent is appointed to assist the site senior officer at the underground mine).

The Regulations specify that the person (site senior officer) must have appropriate background, experience and competence commensurate with the risks and activity of the mine. These attributes must be assessed by the mine operator who is responsible for the operations of the mine. No further assessment is required. There is no Board of Examiners and there are no certificates of competency issued to mining personnel in relation to underground management of the mine.

The processes of Mutual Recognition do not apply because there are no statutory certificates. A person who is the mine operator or the site senior officer must meet the standard required by the regulations, irrespective of their interstate work status.

### **6.3 NSW**

The relevant legislative requirements in NSW are found in the *Work Health and Safety Act 2011*, the *Work Health and Safety Regulations 2011*, the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* and the *Work Health and Safety (Mines and Petroleum Sites) Regulations 2014*.

The national model Work Health and Safety Act and Regulations provide the legal framework for workplace safety (including mines) in NSW. Within this framework NSW has specific requirements for coal mines given the prevalence (and history) of this activity in that state. For the purposes of this options paper, the focus remains on underground metalliferous mines. The statutory requirements for key positions in coal mines is beyond the scope of this Paper although the elements are not dissimilar to the requirements for metalliferous mines.

In NSW the Work Health and Safety laws operate in parallel with the Work Health and Safety (Mines and Petroleum Sites) laws. These laws support the Work Health and Safety Act and Work Health and Safety Regulations and provide additional provisions for work health and safety issues unique to mines and petroleum sites. The mine safety laws are a subset of the Work Health and Safety laws.

The main legislative instrument for consideration in NSW is the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014*. To avoid confusion these will be referred to as the Mining Regulations. The Mining Regulations have been built around the model provisions developed through the NMSF process but they also incorporate a range of specific matters that will apply in NSW mines. Statutory requirements for the competence of identified functional roles is an example.

The NSW Work Health and Safety Regulation 2011 has a chapter 10 (Mines) but there is no content in this chapter. The provisions of this chapter form the basis of the Mining Regulations administered by the NSW Department of Industry (NSW Resources Regulator, Mine Safety).

In NSW the Mine Holder and the Mine Operator remain the primary obligation bearers in mining activity and among other things these entities are responsible for ensuring that the mining operations are undertaken safely.

The NSW Mining Regulations have a number of provisions in place in relation to mandated competency requirements. These are new and replace the requirements under the previous Mine Health and Safety Regulation 2007. Within the new Regulations there are three relevant and interrelated components that underpin 'competency'. These are:

- Statutory functions (a subset of which is a key statutory function) defined by the Regulations;
- Practising certificate and
- Certificate of Competence

Schedule 10 of the Mining Regulations sets out the statutory functions. The function can only be exercised by an individual who is nominated by the mine operator to exercise the function. An individual can only be nominated to exercise the function if they meet the

requirements for nomination specified in the Schedule. The statutory functions that apply to underground mines other than coal mines are as follows:

- Mining engineering manager
- Underground mine supervisor
- Electrical engineer
- Mining surveyor and
- Qualified electrical tradesperson

For the purposes of an underground mining activity (other than coal) the mine operator must nominate a person to undertake a statutory function (where relevant) as listed above. Regulation 136 prescribes that a person can only be nominated to exercise a statutory function if the person meets the requirements for nomination specified in Schedule 10 of the Mining Regulations.

Schedule 10 provides an overview of the function of the position and a broad description of what is required by the position holder. By way of example a mining engineering manager is required to hold a 'practising certificate'. Guidelines issued by the then Department of Trade and Investment (Mine Safety) on Statutory functions (December 2014), provides greater detail in relation to eligibility. The Guidelines note that for a Mining Engineering Manager the person must hold the relevant Practising Certificate or the relevant Certificate of Competence. A certificate of competence that was issued under the previous legislation is taken to be a Practising Certificate under transitional arrangements.

In relation to the positions listed above, the Mining Engineering Manager and the Underground Mine Supervisor require a Practising Certificate to exercise their functions. A certificate of competence will also be required as a prerequisite for obtaining the practising certificate. The Electrical Engineering position requires a certificate of competence (issued by the Department) or registration as a professional electrical engineer, technologist or associate with certain experience, but not a Practising Certificate to exercise the function.

A Practising Certificate is in effect an occupational licence. It provides the authority for the person to undertake the type of work to be covered by the Practising Certificate. This is distinguished from a Certificate of Competence which is a statement that a person has achieved and can demonstrate the requisite, skill, knowledge and experience at a particular point in time.

The 'practising certificate' has introduced a new layer of regulatory requirement in mining operation in NSW. A practising certificate is intended to ensure that the person undertaking a particular (safety critical or key) function maintains their competence over time. This avoids potential problems associated with life term certificates by requiring the person to demonstrate that they have maintained a level of ongoing professional learning and that their competencies remain current. This is not dissimilar to professional development requirements in other trades and professions such as accounting and law. It is not clear as

to how this will be assessed and monitored, however the Department and the Mining and Petroleum Competence Board are currently developing these arrangements..

Regulation 139 notes that an individual is eligible to hold a practising certificate in respect of a statutory function if the regulator is satisfied that the individual has the competence to exercise the function. The regulator may be satisfied that the person is competent to exercise the function if the person holds a certificate of competence in respect of the function or meets other criteria specified by the regulator.

A statutory certificate of competence remains a key element of the competency arrangements in NSW. Regulation 146 states that a person is eligible to hold a certificate of competence in respect of a statutory function if the regulator is satisfied that the individual is competent to exercise that function. The regulator may require the person to satisfy any one or more of set criteria in order to determine whether the individual is competent. The criteria are as follows:

- The individual has completed a specified course or passed a specified examination; and
- The individual holds a specified qualification(s); and
- The individual has specified experience; and
- The individual is above a certain age (21); and
- The regulator has regard for any assessment of the individual made by the Mining Competence Board.

As noted above, certain functions have also been identified as Key Statutory Functions. The primary difference between a Statutory Function and a Key Statutory Function is that the function can only be exercised by one person at a time. The Key Statutory Functions (noting that some of these will apply to coal mines) are:

- Mining engineering manager
- Electrical engineering manager
- Mechanical engineering manager
- Electrical engineer
- Mechanical engineer
- Quarry manager
- Ventilation officer

There are currently arrangements in place in NSW to transition from the previous requirements which gave greater emphasis to certificates of competence to the Practising Certificate concept. The processes involved in assessing the maintenance of competence provisions is still to be finalised and position holders will have a period of time to transition to the new requirements. In brief, the starting point for prescribing eligibility to perform a particular role is a 'statutory function'. If a person performs a statutory function they need to have a practising certificate or (during a period of transition) a certificate of competence.

A person cannot be nominated to perform a statutory function unless they have either the practising certificate or the certificate of competence. The NSW Government will continue to issue certificates of competence for 4 statutory functions which don't require a practising certificate. These are Electrical Engineer (coal), Mechanical Engineer (coal), Electrical Engineer (Underground mines other than coal) and Electrical Engineer (Quarry). These roles can also be performed by people with other qualifications, e.g. registration as a professional engineer. A certificate of competence issued under a previous regime may be taken as evidence of competence for the purposes of issuing a practising certificate.

At its simplest a person operating a key safety position in a NSW mine will need to hold a practising certificate or a certificate of competence. The certificate of competence will be issued for nominated positions if a person meets the relevant criteria. The certificate is for life. A practising certificate has a 5 year term and will be subject to demonstrating ongoing maintenance of competency.

In summary, NSW has a statutory requirement for a person performing work that is similar to an underground mine manager in SA. The closest equivalent position is a Mining Engineering Manager. This position will require both a certificate of competence and a Practising Certificate.

NSW applies principles of Mutual Recognition. An equivalent interstate qualification will be recognised and the person is eligible to work in NSW without further assessment, eg the NSW law and mining safety exam. However, the person will be issued with a Practising Certificate, not with a NSW Certificate of Competence.

NSW does not issue temporary certificates to accommodate situations where the certificate holder may be absent from the mine for any period of time. The duty to comply with the requirement that statutory functions are undertaken by suitably qualified people rests entirely with the mine operator. If the mine operator does not have a suitably qualified person to undertake a statutory function, the mine is unable to operate.

## 6.4 Queensland

The legislation in Queensland that is relevant to mine manager certification is the *Coal Mining Safety and Health Act 1999* (CMSHA) and the *Mining and Quarrying Safety and Health Act 1999* (MQSHA) and the associated *Coal Mining Safety and Health Regulations 2001* and *Mining and Quarrying Safety and Health Regulations 2001*. Like NSW, Queensland has specific requirements in relation to coal mining. This options paper relates to underground metalliferous mining and as such the attention of this options paper is given to the Mining and Quarrying legislation.

The object of the *Mining and Quarrying Safety and Health Act 1999* is to protect the safety and health of persons at mines and any person who may be affected by mining operations.

One mechanism for achieving this is listed in the Act as “providing a way for the competence of persons at mines to be assessed and recognised; and requiring management structures so that persons may competently supervise the safe operation of mines.” The mining legislation operates independently of the model Work Health and Safety legislation and the mining laws are specific to mining workplaces in Queensland. The Work Health and Safety laws do not apply to mines that are covered by the Acts mentioned above.

There are three primary duty holders under Queensland Mine safety laws. These are the mine holder, the mine operator and the site senior executive. The site senior executive is responsible for among other things managing risks at the mine, developing and implementing appropriate management structures and providing for adequate planning, organisation, leadership and control.

The site senior executive is responsible for appointing a person to be an underground mine manager to control and manage an underground mine. If 20 or more people work underground in the mine, the site senior executive must not appoint a person as an underground manager unless the person has a first class certificate of competency for an underground mine. Similarly the Mine Operator must not appoint a person to be a site senior executive unless the site senior executive has a first class certificate of competency for an underground mine.

The Act establishes a Board of Examiners for the purposes of deciding the competencies that are necessary for holders of certificates, including a first class certificate of competency for an underground mine.

The Board is responsible for assessing applicants (or having applicants assessed) and for granting certificates of competency to people who have demonstrated to the Board that they have the appropriate competencies necessary to hold the certificates.

To obtain a First class certificate of competency the person must be able to demonstrate that:

- they have the relevant experience. Relevant experience is taken to mean
  - At least 3 years mining experience, in and around an underground mine, of which at least 2 years underground mining activity is in a metalliferous mine, including at least 9 months directly involved in face operations, including:
  - at least 16 weeks directly involving work in mine development or stoping, with personal experience in the handling and use of explosives, and at least 10 weeks experience in at least 2 of the following:
    - ground support systems
    - transport of ore, waste, supplies and equipment
    - stope preparation and filling
    - shaft maintenance.

- At least 9 months having been a front line supervisor in direct control of and instructing a team of people engaged in mining activities in an underground mining situation, including directly controlling the mine physical environment.
- Specified qualifications: Bachelor of Engineering (Mining), from the University of Queensland or a degree, diploma or other qualification in mining engineering recognised by the Board of Examiners, or a Graduate Diploma in Mining or Mining Engineering from a recognised tertiary institution which is acceptable to the Board, based on a selection of modules/units/courses acceptable to the Board. The person must also have: current HLTF311A Apply First Aid including HLTCP211A Cardiopulmonary Resuscitation (CPR) and RIIRIS601A Establish the risk management system, or equivalent.
- Written and oral examination: To gain a certificate, the person needs to pass a written law exam, then sit an oral exam on mining practice. The person must pass the written test before they can sit the oral exam.

Summary: The Queensland law specifies that a person with management or control of a mine where more than 20 people are working underground, must hold a first class mine manager's certificate. The person with management or control is taken to be the Site Senior Executive and the Underground Mine Manager. The requirements for a first class certificate (underground mine manager) are prescriptive in nature and based on age, experience, mandated qualifications and an examination, all of which is administered by a Board of Examiners.

There are currently 5 safety critical roles in Queensland mines which require statutory certificates of competency issued by the Board of Examiners. Three of these (Underground Mine Manager, Mine Surveyor and Electrical Supervisor) apply in an underground metalliferous mining. In 2013 the Queensland Department of Mineral Resources issued a Mine Safety Framework Consultation Regulation Impact Statement (RIS) which included a range of proposals to change legislative requirements for mining. Among those was a proposal to increase the number of statutory certificate classes from 5 to 16, 10 of which will apply in an underground metalliferous mining situation. The recommendations arising from the RIS are currently under consideration by the Queensland Government. There is no indication that the recommendations have been accepted and whether proposed changes will proceed.

The 2011-2012 Annual Report of the Queensland Board of Examiners notes that "The Board of Examiners traces its origins to the Mining Act of 1898 (Queensland). The Board's activities contribute to securing the safety and health of workers in mines by ensuring only qualified and competent people are entrusted with key roles in mines, which if mishandled, could contribute to injury and loss of life." The functions of the Board include:

- Decide on the competencies required for certificate holders; and
- Assess applicants or have applicants assessed; and
- Grant (or otherwise) certificates of competency.

Queensland applies the principles of mutual recognition, however even though a certificate may be recognised as being reasonably equivalent in terms of the work being undertaken the applicant must still complete and pass a written exam on mining legislation set by the Board in order to be issued with a Queensland certificate of competency.

## 6.5 Victoria

Mine safety within Victoria is legislated through the Victorian Occupational Health, Safety and Welfare legislation (Act and Regulations) with a specific section dealing with additional mining matters. The relevant section of the Regulation is Part 5.3 of the *Occupational Health and Safety Regulations 2007*.

Beyond the general duties established in the Act and the specific safety duties within the Regulations there is no specific requirement for competency arrangements for mine managers. There is no obligation for a mine operator to require a manager to hold a certificate of competency nor is there any arrangement for a Mining Board (of Examiners) to issue a certificate to a mine manager based on defined competencies.

The relevant duty holder within the Victorian legislation is the mine operator. Among other things the mine operator must develop a safety management system for the mine which provides the detail on how specific mining hazards are to be controlled. The safety management system must be reviewed every three years. Section 21 (2) (e) of the Victorian Occupational Health, Safety and Welfare Act, requires the employer (who is normally the mine operator) to provide employees (which includes mine managers) with such information, instruction training or supervision as is necessary to enable those persons to perform their work in a way that is safe and without risks to health.

The provision of this overarching duty may include among other things, formal training including competency assessment and/or certification through a recognised Registered Training Organisation. Importantly the obligation is on the employer to ensure that the right people are doing the right job and this does not exclude a workplace assessment or certification process which assists the employer in demonstrating compliance with their legal duty.

## 6.6 Northern Territory

Mine safety in the Northern Territory is legislated through the NT Work Health and Safety legislation (Act and Regulations). The *Mining Management Act 2001* (as in force at 1 July 2015) provides specific legal requirements for the management of mines and although the Act has an environmental focus it does encompass safety.

Section 10 of the Mining Management Act requires (where the owner for a mining site is not the operator) that a mine owner appoint a mine operator who is to be responsible for



developing a mine management system. Section 11 of the Act notes that the Minister may require a particular class of person to hold specified competencies and require that the person holds a certificate of competency to carry out the work. Certificates of competency are required for Shotfirers and various classes of high risk work being undertaken on mine sites however, an information sheet released by the Minister in 2001 when the act was introduced states that “Under the Act there is no requirement for a Mine Manager’s Certificate of Competency. The operator of a mining site is responsible for ensuring persons are competent to undertake their work.”

Section 15 of the Act requires the owner to ensure that the operator is competent and provides adequate resources to establish and implement the management system. The Act defines “competent” as meaning “having the skill and knowledge required to carry out the relevant task or function in accordance with the appropriate environmental standard.”

Beyond the requirements of the Mining Management Act, there are no specific provisions for the certification of competence of underground mine managers in the Work Health and Safety legislation. There is no Board of Examiners with responsibility for assessing competence against particular criteria. Safety management requirements in relation to mines is outlined in chapter 10 of the *Work Health and Safety Regulations 2011*, and mine operators and workers are required to comply with those requirements in addition to the general duties established in the Work Health and Safety Act.

Mutual recognition arrangements are not required given that there are no longer certificates of competency issued for this activity in the NT.

## 6.7 Other

The Australian Capital Territory (ACT) has not been included in this Review. There is minimal mining activity undertaken in the ACT. The ACT has adopted the model Work Health and Safety laws but has not included the mining chapter (Chapter 10) in the ACT Work Health and Safety Regulations. Any activity that may occur at a quarry or mine site is subject to the general provisions of the Work Health and Safety Act and Work Health and Safety Regulations.

A summary comparison of statutory certification requirements in other Australian jurisdictions including further details on “experience” requirements is attached as Appendix C.

In considering the application of law in other jurisdictions it is also instructive to consider learnings from critical incidents and the associated investigations of those incidents. The Pike River disaster in New Zealand is a case in point. On Friday 19 November 2010, at 3:45pm there was an underground explosion at the Pike River coal mine. Twenty-nine men lost their lives, and their bodies have not been recovered.

The subsequent inquiry into the causes of that explosion and recommendations on future action include references to the following:

“The regulator needs to supervise the granting of mining qualifications to managers and workers. This should be supported by changes to the regulations to comprehensively identify the key statutory officers, their roles, duties, qualifications and training. At present some positions are identified but only the certificates of competence are mandated. For example, there is no requirement for a mine to have a ventilation officer. The aim should be to align the new regulations with Australia, determine the training required and work towards a joint examination and accreditation process with that country. This will mean the mining workforce in both countries will be working to the same standards.

The responsibilities of the statutory mine manager should be defined. Current regulations require the employer to appoint someone to manage the mining operation and personally supervise health and safety. No detailed responsibilities are defined. The Queensland law provides good guidance.”<sup>2</sup>

Essentially the Pike River Mine Report calls for stronger regulations in relation to competency certificates and the operation of mine managers. It is important to note that this disaster occurred in an underground coal mine which as mentioned previously introduces a new and different suite of hazards.

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<sup>2</sup> Royal Commission on the Pike River Coal Mine Tragedy. Commission’s Report Volume 1 October 2012.

## 7. Discussion Points – Issues for Consideration

### 7.1 Statutory Certification. Does statutory certification improve safety management at a mine?

A key policy issue to be determined from this Review is the question of statutory certification. As mentioned at the beginning of this Paper, the need to require mine managers to be competent is not in question. It is acknowledged that the notion of competency can be mandated in different ways however, the related issue is the requirement for mine managers to be assessed by Government officials and if successful to be issued with a certificate of competency by the Department of State Development.

It would appear that government has taken on the responsibility of certifying mine managers as competent because there is little confidence that this requirement will be delivered by those responsible for the mining operation. To a large extent, statutory certification is used as an assurance or an added security measure for workers and the community that a dangerous activity is being managed safely.

This view is echoed in a written response from the Queensland Board of Examiners to the 2013 Consultation Regulatory Impact Statement on the Mine Safety Framework in Queensland. The Board writes “Statutory competency was introduced into the mining industry two centuries ago in the United Kingdom, statutory competency being deemed necessary due to the significant numbers of persons being killed and maimed in the mining industry. This was particularly true with fires and explosions that in many occasions caused multiple fatalities. It was postulated that, in a hazardous industry such as mining persons in positions of authority were required to be competent in managing the risks associated with the hazards and that simple tenet still holds true today in any hazardous industry.”

Historically, the certification process has been used as the measure of competence, the benchmark of which is set by the Government. The Mines and Works Inspection Regulations 2013, (Regulation 4) requires that where 10 or more people are to work at a mine in a 24 hour period, the mine owner must appoint a *suitable* person who holds the *appropriate* qualification as a manager of the mine. The appropriate qualification (depending on the number of people working at the mine) is a First or Second Class Manager’s (mine or quarry) certificate.

The Chief Inspector of Mines has the responsibility of assessing applications for mining and quarry manager’s certificates from persons seeking to be granted these certificates. The certificate is taken to mean that the person charged with the responsibility of managing the mining operation has the requisite technical knowledge of mining practices and that they are sufficiently experienced in mining work and the range of activities that are being undertaken at the mine. Against this background there is an expectation that the mine will be operating

safely because the person is competent to do so and a certificate issued by the Chief Inspector confirms that this is the case.

There are however, a number of limitations with this approach. Most obviously the certificate only applies to a defined class of workers in particular mining situations, these being underground mining or quarrying or on a restricted basis as required. The reality is that there are a variety of mining functions that require competence and there are many (new) mining methods which do not fit neatly into the underground mining or quarrying categories. A statutory certification process is not an ideal instrument to address variable work situations and the different levels of expertise that are required to deliver safe work outcomes. Moreover the statute is relatively inflexible and slow to respond to the pace of technological advances.

A further limitation of the certification process is that a certificate is a statement about a persons, qualifications, skill and experience at a particular point in time. The certificate issued in SA is however, a life term certificate which has little relevance to the ongoing competence of the certificate holder. NSW has acknowledged that this is an issue and has introduced a requirement for a Practising Certificate. The Practising Certificate requires renewal (after 5 years) based on the certificate holder demonstrating that they have maintained their competence in the prescribed area of work.

The disadvantage of the NSW scheme is that it adds complexity and extra layers of regulatory burden to the statutory process with an unknown return of a safety dividend. Moreover this arrangement has the potential to transfer the business risk from the workplace to the regulator in that the regulator becomes responsible for authorising particular individuals to do particular tasks. This is contrary to the spirit of modern safety legislation which places responsibility for managing safety with the workplace participants. The maintenance of competence issue is also arguably incorporated into the Work Health and Safety Mining Regulations. The mine operator must assure continuous improvement through requirements to review control measures, develop performance standards, audit systems and a review of safety management systems (including the management structure) at least once in every 3 years.

In contrast to the requirements of the Mines and Works Inspection laws the provisions of the Work Health and Safety legislation contemplate constantly changing work environments. The Work Health and Safety laws take a more performance based approach focusing on outcomes rather than inputs. The Work Health and Safety Regulations place clear obligations on mine operators to ensure the safety of every aspect of mine operation. This includes the development of tailored procedures and work plans that are specific to a particular mine. The mine operator must manage safety at the mine according to the risks presented by hazards that are present at that mine. The safety outcome that is expected to be delivered by a certified mine manager is arguably provided for through the existing regulatory framework under Work Health and Safety laws.

Statutory certification means that a person can only perform a particular function if they hold a certificate of competency from the Regulator. Statutory certification is not a reliable indicator of competence. It is a statement that a person has met a selection of prescribed requirements at a particular point in time. Does statutory certification deliver improved safety outcomes at a mine? The safety performance of a mine is a function of many variables. It is not possible to single out a measure as achieving improved safety performance. Statistical data indicates that accident and injury rates in mines has fallen significantly over the past decade. The extent to which statutory certification has contributed to this is unknown.

Statutory certification is required in NSW and Queensland and is currently under review in WA. Statutory certification is not required in Victoria, Tasmania or the Northern Territory.

#### Discussion Point

1. Is statutory certification the best means of assuring the competency of mine managers?

## 7.2 The threshold for management requirements?

The regulations establish a number of legal requirements for the management of mines and quarries in South Australia. The starting point for mine manager requirements is to determine when a mine owner needs to appoint a certificated mine manager. The requirement for this is as follows:

- Where a mine or quarry employs a defined number of workers, a manager (a suitable person who holds the appropriate qualifications) must be appointed by the mine owner. The number of workers determines the particular qualification that must be held ie first class or second class. A 1<sup>st</sup> class certificate is required if 20 or more persons are working at the mine in any period of 24 hours. If between 10 and 19 persons are working at the mine in any period of 24 hours a 2<sup>nd</sup> class certificate (or a 1<sup>st</sup> class certificate) is required.

It may be argued that setting a threshold for the type of manager that is required for a mine is a useful measure because some very small operations and some mining activities may not require a manager with the same skill set as larger enterprises. The logic here is that mines with less than 10 workers do not require a manager with the same level of training and experience as a mine with more than 10 workers.

The setting of a particular threshold remains a contentious issue in most mining jurisdictions. Tasmania has retained a threshold, although it is based on the number of hours worked at the mine (10,000 per month) rather than the number of workers. Queensland has set a threshold of 20 or more people working underground for the purposes of requiring an underground mine (metalliferous) manager. The threshold in WA is 25. NSW has abandoned the notion of thresholds and has based statutory requirements on functions

rather than numbers. This is to say that if underground mining is taking place, the mine operator must appoint suitably qualified people to statutory functions irrespective of how many people are working, how many hours are being worked or how much material is being mined.

The concern with prescribing an arbitrary number (such as the number of workers) as a threshold for requiring a qualified mine manager is that the appointment has a minimal relationship with the risks associated with the mining activity. A small mining operation may carry significantly higher risks than a larger mine given the nature of the activity, geology and mining methods.

The notion of setting a threshold based on the number of people at the mine is considered to be a redundant and outdated principle. This is especially so against the backdrop of safety legislation which assigns a duty on the mine operator to ensure that all risks to the health safety and welfare of workers are managed, irrespective of the size of the mine.

There is no threshold based on worker numbers in NSW and given that statutory certification does not apply in Victoria or the NT there is no threshold requirement in those jurisdictions. As noted earlier in this options paper, Western Australia is currently reviewing the Mines Safety and Inspection legislation. While the regulatory approach under the proposed Work Health and Safety (Resources) legislation has not been finalised it is expected that the number of workers at a mine as a trigger for certification will be reviewed.

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#### Discussion Point

2. Is the number of workers engaged at the mine over a particular period of time, a relevant threshold for the requirement to engage a competent mine manager?

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### 7.3 The Fit and Proper Person Test

- A person seeking to obtain a certificate as a mine/quarry manager must satisfy the Chief Inspector that he or she is a fit and proper person.

It may be argued that the fit and proper person test is in place to ensure that only those people of good character are appointed as manager. At face value, this seems to be a reasonable expectation. A person in a position of responsibility needs to be up to the challenges that the position will bring. Presumably, if a person is “fit and proper” they are better placed to meet those challenges.

There is however, the potential for an assessment of ‘fit and proper’ to be a subjective judgement made by officials who are not necessarily well placed in measuring “fit and proper”.

The appointment of people into senior roles is a matter for the workplace. The duty remains with the workplace to appoint suitable people to positions of authority. The research on this issue failed to uncover any evidence of a person being refused a certificate of competency on the basis of this criteria alone.

WA and Queensland require a fit and proper person test. NSW, Tasmania, Victoria and the Northern Territory have no such test for the purpose of issuing a certificate of competency.

#### Discussion Point

3(a) Is a fit and proper person test a reasonable requirement for a mine manager?

3(b) Should such a test be set in law?

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## 7.4 Is experience a relevant indicator of competence?

The question of competence is central to the discussion on mandating requirements for mine managers. Experience is a critical component of any measure of competence. However, related to this is the process for determining and judging 'experience'. Does experience make a mine manager competent and who is responsible for ensuring that the person has the appropriate experience to undertake the work? The Mines and Works Regulations have the following requirement:

- In the case of 1<sup>st</sup> and 2<sup>nd</sup> class Mine Manager certificates the person must have achieved 3 years practical experience.

There is an expectation that a person managing underground mining or undertaking quarrying activity has some experience with this type of work. These are expectations that are held by mine owners, workers, Government and the community. It is difficult to imagine any situation where a person will be responsible for managing high risk activities without an appropriate level of experience to do the work.

The need for a person to have a level of experience in order to be appointed as a mine or quarry manager is not contested. The question is, what is an 'appropriate' level of experience and who judges that? The Regulations specify that for the purposes of certification as a first class and second class mine manager the person must have achieved 3 years of experience in underground mining (or quarrying for a Quarry manager).

The Guidelines issued by the Department of State Development provide more detail in relation to experience including in the case of an underground mine manager at least 12 months 'hands on' underground experience.

Prescribing particular types of experience is a limiting condition. An unintended consequence of stating the type of experience required is that it does not allow for changes in mining practices or new types of mining.

The concept of 'experience' is a legal requirement in both the Mines and Works Inspection legislation and the Work Health and Safety Regulations. A competent person is defined in the Mines and Works Inspection Regulations as a person who is suitably qualified whether by experience, training or both to carry out the work or function described in the relevant regulation. A competent person is defined in the Work Health and Safety Regulations as a person who has acquired through training, qualifications or experience the knowledge and skills to carry out the task. The requirement in the Work Health and Safety legislation places the obligation on the workplace to ensure that the person doing the work is competent and experience is a direct element of competence. On this point it is important to note that the Work Health and Safety legislation expresses competence as a function of qualifications or experience. The view of most mines based legislation is that a person needs to have appropriate qualifications and experience to undertake a safety critical role. If there is an intention of relying upon Work Health and Safety legislation for the competence of mine managers this issue may need to be addressed in the definition of competent.

Every jurisdiction has a requirement for people undertaking work such as underground mining to be competent and 'experience' is one component of competency. WA, Queensland and NSW prescribe the minimum requirements for experience eg a minimum amount of time spent in an underground mining situation. Victoria and the NT require 'experience' but defer to those responsible for safety in the workplace to determine the type of experience that is necessary to do the work. Tasmania requires 'experience' but whilst not mandating what constitutes experience the Tasmanian Regulations require that in considering experience (of the site senior officer) the mine operator must have regard for the level of risk arising from the mining operation, the size of the mine and the technical expertise available to the site senior officer.

#### Discussion Point

- 4(a). Should the requirement of experience for a mine manager be included in law?  
4(b). Should specific elements of experience (eg 3 years) be prescribed?

## 7.4 An age limit

- The applicant must be at least 25 years of age.

Schedule 1 Part 1 (7) (1) (c) of the Mines and Works Inspection Regulation 2013, establishes an age limit requirement. Age limits are also used in other regulatory instruments. By way of example the Work Health and Safety Regulations require that a person must be at least 18 years of age to obtain a High Risk Work licence for scheduled work such as scaffolding, rigging and crane operation.

An age limit provides an added dimension to the experience criteria in that it supports the requirement of practical experience. There is also the question of maturity and the rationale here is that a person in a position of responsibility is expected to be sufficiently mature to



manage difficult situations and with that there is a view that the ability to make informed and controlled decisions comes with age.

The age limit of 25 is a requirement in WA and Queensland for a person to be eligible to apply for a mine manager's certificate. In NSW the age limit is 21. No age limits are prescribed in Victoria, Tasmania or the Northern Territory.

#### Discussion Point

5. Should an age limit be a prescribed requirement for a mine manager?

## 7.6 Appropriate Qualifications

- In the case of 1<sup>st</sup> and 2<sup>nd</sup> class certificates the person must hold appropriate qualifications. In the case of 1<sup>st</sup> class certificates this must be a degree or diploma in mining engineering from a tertiary institution.

Schedule 1 Part 1 (1) (a) (iii) of the Regulations require for the purposes of a First Class or Second Class Underground Mine Manager's certificate the person is to hold a degree or diploma in mining engineering from a university or other tertiary institution in Australia or from another education body recognised by the Chief Inspector.

There are two points to consider here. The first is whether or not it is appropriate to require an underground mine manager or a quarry manager (in prescribed situations) to hold a tertiary qualification. The second point is whether or not it is reasonable to specify that the degree is a Mining Engineering degree (from an Australian University) or an equivalent qualification.

An underground mine manager works in a unique and potentially high risk environment. There are significant hazards associated with the work many of which may carry fatal consequences if the work is not carried out correctly. It is generally agreed that an underground mine manager needs to be sufficiently trained to operate in that environment. At present a degree course offers the most comprehensive form of training and the background knowledge that is considered necessary to equip the manager in undertaking this type of work.

Given the hazardous nature of mining work, it is important that those in charge of mining operations are suitably qualified to do that work. However, changes in mining technology have introduced new methods and mining practices that may require different types of qualifications. By way of example, chemical or electrical based qualifications may be relevant to a particular type of mining activity.

Qualifications including a mining engineering degree are currently specified in WA, Queensland, NSW and Tasmania for underground mining. Qualifications are not prescribed

in Victoria or the Northern Territory other than to place the obligation on the mine operator to ensure that the person is competent and qualifications are one component of competence.

#### Discussion Point

6(a). Is a degree or diploma (or equivalent) an appropriate qualification for a mine manager?

6(b) Should the law specify the type of qualification (eg mining engineering) that is required?

## 7.7 Additional examinations

- In all cases the person must pass examinations set by the Chief Inspector, on mining law, environment and occupational health and safety.

Schedule 1 Part 1 (1) (a) (iii) of the Regulations allows the Chief Inspector to issue a First Class Underground Mine Manager's Certificate to a person who, after meeting other criteria has passed a written examination in mining law, environment and occupational health and safety law.

The Chief Inspector is responsible for the setting and marking of examination papers. The examination covers the following legislation:

- Mines and Works Inspection Act 1920
- Mines and Works Inspection Regulations 2013
- Work Health and Safety Act 2012
- Chapter 10 Work Health and Safety Regulations 2012
- Explosives Regulations 2012

An examination of the type required in SA for mine manager certification is currently required in WA, Queensland and NSW. There is no additional requirement in Tasmania, Victoria or the Northern Territory. While the purpose of the examination may be to ensure that the applicant is aware of legislative requirements it does not guarantee that the applicant understands the principles behind the legislation. By way of example, the mine operator needs to be able to demonstrate the control measures for specific hazards within the Principal Hazard Management Plan and how these are presented in a meaningful way rather than simply knowing that a Principal Hazard Management Plan is required. It should be noted however, that in Queensland the applicant is also required to successfully complete a course in establishing and maintaining a risk management system.

WA is currently reviewing legislative requirements for mine manager certification. A proposal that is being considered is that the examination requirement may continue but this could be a computer based examination conducted at the office of the Department. This would allow an applicant to attend the Department at any time and undertake the

examination at a time convenient to the applicant thus avoiding the current arrangement where exams are conducted at set times throughout the year or at times convened by the relevant Board of Examiners.

#### Discussion Point

7(a). Is an examination on mining law, environment and safety necessary?

7(b). Should it be the responsibility of the regulator to determine a person's understanding of mining law and safety?

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## 8. Conclusion and Options

There is universal agreement that the person responsible for managing the operation of the mine must be competent and must be able to ensure that as far as reasonably practicable they have taken the necessary steps to allow people to work safely. The question is whether the current business model built around statutory certification of competency is the most effective and efficient way of ensuring safe work practices in South Australia's mining sector.

This Review has examined the current legislative environment in SA that is directly relevant to safe work practices in mines. This is the Mines and Works Inspection legislation administered by the Department of State Development and the Work Health and Safety laws administered by SafeWork SA. The Review has considered mine safety legislation and procedures for statutory certification of mine managers in other Australian jurisdictions to inform an understanding of regulatory approaches elsewhere.

The Review has also flagged a number of key issues as Discussion Points for consultation with relevant stakeholders. The Discussion Points raised throughout the paper afford stakeholders an opportunity to express their views about relevant elements of the legislative regime in SA.

Notwithstanding any comments that stakeholders may make on the issues raised there are some key principles that need to apply in SA mines. These are:

- A mine manager is responsible for managing the day to day operations of the mine and holds a key position of authority in the mine.
- A mine manager must be competent to undertake this role.
- A persons experience in doing the type of work that they will be responsible for managing is a valid indicator of their capability to do the work.
- A persons training (and qualification) is a further indicator that the person has the necessary background knowledge to address relevant workplace situations.

The legal framework, which is most typically a regulation, needs to accommodate these principles. The key questions are how and where?

The purposes of prescribing competency arrangements for underground mine managers and quarry managers is to assure the safe operation of mining activities on those sites. This is a safety issue which is best addressed under safety law. The Mines and Works Inspection legislation does not provide the holistic approach to safety encompassed by the Work Health and Safety legislation. Accordingly the options considered here are how the 'competency assurance' model can be best achieved within the Work Health and Safety framework.

The following options have been presented with this in mind.

**Option 1: Repeal part 2 Division 1 and Schedule 1 of the Mines and Works Inspection Regulations and rely upon the safety requirements for mine managers to be covered in the Work Health and Safety Regulations.**

- Under Work Health and Safety law the mine operator has an obligation to ensure that a person at a mine undertaking (any) management function is competent. The definition of 'competent' includes the level of training qualification or experience necessary to do the work. To this extent the Work Health and Safety Regulations require experience or qualifications but note that those responsible for the mining operation must appoint people who have the qualifications or experience that is relevant to the work being undertaken and is commensurate with the risks arising from those operations.
- The Work Health and Safety Regulations contain requirements for the management of mine safety including safety management systems and principal hazard management plans. These address the safety management requirements expected of the mine manager.
- A specific provision of the Work Health and Safety Regulations (622) is for the mine operator to develop and implement a Safety Management System. The Safety Management System among other things requires the mine operator to detail the competency requirements for positions in the management structure. For completeness, this requirement could be supported by Guidelines or possibly a Code of Practice which details the minimum qualifications that may be required in particular mining situations. By way of example, a Guideline may state that for underground mining an engineering mining degree or diploma (or equivalent) is required. It could also provide guidance on other types of qualifications that may be required for alternative mining activities.
- The Work Health and Safety Regulations apply specific duties to mine owners and mine operators. For a mine operator the duties established in the regulations are specific. The mine operator must have management systems and hazard management plans in place. Where the mine manager is the mine operator, the mine manager, under corresponding Work Health and Safety laws is still required to deliver the control measures identified in the management plans. Accordingly the Work Health and Safety Regulations provide a robust safety framework which require a competent mine manager.

- This option will mean that the requirements for mine manager competencies and the certification process within the Mines and Works Inspection Regulations 2013 will be repealed.
- There will be no requirement for statutory certification.

This option places the responsibility for effective safety management with relevant workplace parties. The advantage of this option is that it offers sufficient flexibility to accommodate all types of mining activities and hazards associated with mining work. The regulations establish an obligation on those in control of the workplace to ensure that people undertaking specified types of work are competent to do so. As an extension of this, the Regulations place an obligation on those who control the work to ensure that all people undertaking work in the workplace have the necessary training, instruction and supervision to do the work.

Arguably, this option addresses the safety outcomes that are expected of the mine operator and the mine manager. This approach offers flexibility and reduces regulatory burden by removing the assessment and certification requirements currently in place.

However, the disadvantage of this option is that it does not specify the elements of competence that are required by a mine manager. This is to say, the regulation is silent on the type of qualification (eg a mining engineering degree) or experience that many consider as necessary to do this work. The Regulation requires those responsible to appoint a competent manager but leave that to the workplace to decide. A subset of this option could be to develop industry specific guidance (or a Code of Practice) which describes the elements of competence that are expected of people undertaking particular types of work eg underground mine manager. While this may be a useful course of action, guidance material lacks the force of regulation.

This option will involve the repeal of the Mines and Works Inspection Regulations 2013. Mine safety will be covered by the existing Work Health and Safety Act and Regulations without any amendment to this legislation.

This approach has been in place in Victoria and the Northern Territory since 2012.

**Option 2. Repeal part 2 Division 1 and Schedule 1 of the Mines and Works Inspection Regulations and amend the Work Health and Safety Regulations to include specific requirements for mine managers.**

- The requirements of the Mines and Works Inspection Regulations 2013 will be repealed.
- Under this option, the Work Health and Safety Regulation is to be amended to include an additional requirement that the mine operator appoints a competent

person with the appropriate training, qualifications and experience to the position of mine manager.

- To avoid doubt a further requirement in the regulation could be to redefine “competent person” to explain that appropriate qualifications means relevant experience and relevant tertiary qualifications noting that for an underground mine manager this is a mining engineering degree, diploma or equivalent.
- As per option 1, this option could involve the development of supporting guidance material which provides practical information on the type of experience and qualifications that could apply in different types of mining activities.
- There will be no requirement for statutory certification.

This option is similar to option 1 but will involve an amendment to the Work Health and Safety Regulations (Chapter 10) to include a specific reference to a mine manager and the qualifications and experience that this position must hold. While this option has similar advantages to those of option 1 it does not offer the same level of flexibility.

This option is similar to the approach in Tasmania. The Tasmanian regulations rely to a large extent on the Work Health and Safety requirements but have additional requirements which specify that the site senior officer must have (or be assisted by someone who has) relevant qualifications and experience. The Tasmanian regulations provide sufficient flexibility to allow the mine operator to ensure that the qualifications are relevant to the activity being undertaken. However, in the case of underground mining the qualification (mining engineering degree) is specified.

While any regulatory amendments are subject to the views of Parliamentary Counsel a possible variation on this option could be to amend the provisions in relation to Principal Hazard Management Plans by requiring the Mine Operator to appoint a person with the requisite experience and qualification to manage the identified hazard. The advantage of this approach is that the management structure is commensurate with the size and complexity of the mining operation. Smaller sites with fewer hazards will require more straightforward management arrangements.

### **Option 3. Retain an assessment process and issuing of certificates of competency.**

- The requirements of the Mines and Works Inspection Regulations 2013 will be repealed.
- Chapter 10 of the Work Health and Safety Regulations will need to be amended to require the mine operator (where appropriate) to appoint a person who holds a certificate of competency to be a mine or quarry manager.
- The class of manager i.e. first class or second class and threshold limits for manager classification is to be determined.
- In order to qualify for a mine (or quarry) manager’s certificate the person must have the appropriate qualifications to hold the position of mine manager.

- Appropriate qualifications are taken to be prescribed experience and a degree or diploma in mining engineering or equivalent.
- The assessment of applicants, including the testing of knowledge and issuing a certificate to those who meet the required standard is to be undertaken. Currently this is undertaken by the Department of State Development.

The main advantage of this option is that it provides an assurance to government and workers that the person taking on the role has been independently assessed and has demonstrated the minimum standards expected of the role. The main disadvantage of this option is that it does not provide workplaces with flexibility in appointing people to mine management positions. Furthermore the administrative and regulatory burden on workplaces continues and the narrow definition of both competence and position excludes new and modern mining methods.

## Summary

The Mines and Works Inspection Regulations has three key elements. These are specifying competence, assessing competence and certifying competence. A summary of how these elements are captured by the above options is as follows:

Option	Specifying Competence	Assessing Competence	Issuing a Certificate
1 Obligation for competent managers under existing Work Health and Safety laws.	X	✓ <i>Obligation is with the workplace</i>	X
2 Obligation for competent managers under amended Work Health and Safety laws to clarify competence ie qualifications and experience.	✓	✓ <i>Obligation is with the workplace</i>	X
3 Amend Work Health and Safety laws to include assessment and certification requirements for managers.	✓	✓ <i>Obligation is with the Government</i>	✓

As part of the Review, stakeholders will be invited to indicate a preferred option from those listed above, noting that consideration needs to be given to the key drivers for this review which require any regulatory response to be both effective and efficient whilst maintaining accountability and strengthening compliance and enforcement practices.

**Schedule of Mine Safety Requirements in South Australia**

The following schedule identifies relevant duty holders under the Mines and Works Inspection legislation and the Work Health and Safety legislation and the duties that are held by those parties.

<b><i>Mines and Works Inspection Regulations 2013</i></b>	<b><i>Work Health and Safety Regulations 2012</i></b>
Who is a Mine Owner?	Who is a Mine Holder?
Mine Owner means any person who is the immediate proprietor or lessee or occupier of a mine, or any part thereof, and includes a contractor or tributor working therein, but does not include a person who merely receives a royalty, rent, or fine from a mine, or is merely the proprietor of a mine which is subject to any lease, grant, or licence for the working thereof, or is merely the owner of the soil and not interested in the products of the mine.	The Mine Holder is the person who is conducting a business or undertaking with control over a right or entitlement to carry out mining operations at the mine. The PCBU has control over an entitlement to carry out mining operations if the person holds the required mining authorisation. A mining authorisation means a lease, claim, tenement, licence, permit or other authority authorising the carrying out of mining operations.
Duties of a Mine Owner	Duties of a Mine Holder
A mine owner must: <ul style="list-style-type: none"> <li>• Provide necessary equipment in good order.</li> <li>• Ensure that mining activity does not unduly impact on the amenity of the surrounding area.</li> <li>• Facilitate soil conservation</li> </ul>	A mine holder must: <ul style="list-style-type: none"> <li>• Appoint a mine operator</li> <li>• Provide the mine operator with all relevant information that may be reasonably required by the mine operator to discharge the duties imposed on the mine operator under the Act.</li> </ul>



<ul style="list-style-type: none"> <li>• Protect surrounding areas from damage.</li> <li>• Furnish the Chief Inspector with decommissioning notices.</li> <li>• Ensure appropriate rehabilitation</li> <li>• Appoint a qualified mine manager.</li> <li>• Appoint a suitable person if the mine manager is to be absent for 7 days or more.</li> <li>• Provide the Chief Inspector with a notice in writing of an appointment of a mine manager.</li> <li>• Must obtain approval of the Chief Inspector re commencement of work etc.</li> <li>• Provide the Chief Inspector with full details re the Mine Manager.</li> <li>• Provide plans, drawings, maps, and sections etc. of the mines workings to the Chief Inspector if required.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide the regulator with written notice of the appointment of the mine operator and</li> <li>• Advise the regulator of any change to the appointment.</li> </ul>
<p style="text-align: center;">Who is a Mine Manager?</p>	<p style="text-align: center;">Who is a Mine Operator?</p>
<p>A Mine Manager (of a mine or a quarry) means the person who for the time being has the immediate charge or direction of mining operations and includes a temporary manager or other person appointed in accordance with these regulations to act in the absence of a manager.</p>	<p>The mine operator of a mine is the mine holder unless the mine holder appoints another person to be the mine operator. The mine holder may appoint a person to be the mine operator if the mine holder authorises the person to have management or control of the mine and to discharge the duties of a mine operator. A reference in the regulations to a person conducting a business or undertaking includes a reference to the mine operator.</p> <p><i>There is some blurriness as to whether a mine operator is a mine manager. This may need to be considered on a case by case basis noting that in some situations (where the person has the immediate charge or direction of mining operations) the mine operator will be the</i></p>

	<i>mine manager, while in other cases (eg where the person is responsible for managing a particular mining function rather than the overall operation of the mine) they will be different entities.</i>
Duties of a Mine Manager	Duties of a Mine Operator
<p>The Mine Manager must:</p> <ul style="list-style-type: none"> <li>• Facilitate an inspection of the mine if requested by an inspector to do so and</li> <li>• Do all things necessary to make an inspection of the mine to occur.</li> </ul>	<p>The Mine Operator must:</p> <ul style="list-style-type: none"> <li>• Manage risks to health and Safety in accordance with the risk management process outlined in the Work Health and Safety regulations.</li> <li>• Review control measures that have been developed to control particular risks at the mine.</li> <li>• Where a control measure has been reviewed in response to a notifiable incident or a high potential incident, the mine operator must keep a record of the reviews undertaken of the control measures.</li> </ul> <p>The Mine Operator has specific duties including:</p> <ul style="list-style-type: none"> <li>• Establish and implement a safety management system for the mine;</li> <li>• Record the management structure for the mine including the competency requirements for positions in the structure;</li> <li>• Prepare a principal mining hazard management plan.</li> <li>• Ensure that there is appropriate and effective communication between outgoing and incoming shifts.</li> <li>• Manage risks associated with the movement of mobile plant.</li> <li>• Manage risks associated with temperature and air quality (including moisture content and dust levels).</li> <li>• Monitor exposure to airborne dust.</li> </ul>

	<ul style="list-style-type: none"><li>• Manage risks associated with fatigue</li><li>• Apply specific control measures in relation to mine winding systems.</li><li>• Ensure that shaft conveyance systems are safe and without risk to workers.</li><li>• Manage risks associated with dust explosions.</li><li>• Control airborne contaminants.</li><li>• Maintain adequate ventilation systems</li><li>• Monitor air quality.</li><li>• Prepare a ventilation plan.</li><li>• Prepare an emergency plan.</li><li>• Provide for adequate means of escape and safe refuge, including communication systems.</li><li>• Ensuring that workers are provided with suitable information, training and instruction.</li></ul>
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**Mine Safety Legislation in Australian States and Territories**

This table provides an overview of the legislative instruments that apply to mine safety including provisions relating to underground mine managers and quarry managers.

State/Territory	Relevant legislation	Administered by	Related legislation	Administered by
SA	<i>Mines and Works Inspection Act 1920</i> <i>Mines and Works Inspection Regulations 2013</i>	Department of State Development, Mineral Resources Division.	<i>Work Health and Safety Act 2012</i> <i>Work Health and Safety Regulations 2012</i> This legislation applies to all workplaces including mines.	SafeWork SA
NSW	<i>Work Health and Safety (Mines and Petroleum Sites) Act 2013</i> and the <i>Work Health and Safety (Mines and Petroleum Sites) Regulations 2014</i> .	Department of Industry Resources and Energy Mine Safety	<i>Work Health and Safety Act 2011</i> , the <i>Work Health and Safety Regulations 2011</i> , This legislation operates in parallel and interchangeably with the specific mine safety legislation. A reference in one Act is taken to be a reference to the other Act. The Work Health and Safety Regulations have not adopted the Chapter 10 Mining Regulations of the Model Work Health and Safety laws. This chapter has been adopted and modified within the <i>Work Health and</i>	SafeWork NSW

			<i>Safety (Mines and Petroleum sites) Regulation 2014</i> to incorporate the core elements of the model NMSF mining regulations in addition to matters that are specific to NSW	
Queensland	<i>Coal Mining Safety and Health Act 1999 (CMSHA) and Mining and Quarrying Safety and Health Act 1999 (MQSHA) Coal Mining Safety and Health Regulations 2001 and Mining and Quarrying Safety and Health Regulations 2001</i>	Department of Natural Resources and Mines	Work Health and Safety Act 2011 (Note: while the Work Health and Safety Act applies to all workplaces – the mining safety legislation is applied to mines). The Work Health and Safety Regulations do not apply to mines and Queensland has not adopted the mining chapter (10) within the Queensland Work Health and Safety Regulations. Mine safety legislation for underground metalliferous mines is the provenance of the Mining and Quarrying Safety and Health Regulations in Queensland.	Department of Justice
Western Australia	<i>Mines Safety and Inspection Act 1994 Mines Safety and Inspection Regulations 1995</i>	Department of Mines and Petroleum Resources Safety	NA	NA
Northern Territory	<i>Work Health and Safety Act 2011 Work Health and Safety Regulations 2011</i>	WorkSafe NT	Mine safety legislation in the NT is provided through Chapter 10 of the Work Health and Safety Regulations. <i>The Mining Management Act 2001 NT</i> provides specific legal requirements for the management of mines although the	

			Act has an environmental focus rather than a safety focus. Notwithstanding this, section 10 of the Mining Management Act requires that a mine owner appoint a mine operator who is to be responsible for developing a mine management system	
Tasmania	<i>Work Health and Safety Act 2012 Work Health and Safety Regulations 2012 and the Mines Work Health and Safety (Supplementary Requirements) Act 2012 and the Mines Work Health and Safety (Supplementary Requirements) Regulations 2012.</i>	WorkSafe Tasmania (Department of Justice)	Mine safety legislation in Tasmania is provided through specific requirements in the Supplementary Mines Work legislation operating together with the general work health and safety obligations of the Work Health and Safety laws.	WorkSafe Tasmania
Victoria	<i>Occupational Health and Safety Act 2004 Occupational Health and Safety Regulations 2007</i>	WorkSafe Victoria	There is no stand-alone mine safety legislation in Victoria. Victoria has not adopted the model Work Health and Safety laws.	WorkSafe Victoria
ACT	<i>Work Health and Safety Act 2011 Work Health and Safety Regulations 2011</i>	WorkSafe ACT	There is no specific mine safety legislation in the ACT. The low level of mining activity is such in the ACT that the general duties of the Work Health and Safety Act and Regulations apply. The ACT has not adopted Chapter 10 (Mining) of the Work Health and Safety model laws.	WorkSafe ACT

## Appendix C

### Underground Mine Manager Requirements: An Interstate Comparison

State	Management Classification (and minimum age)	Experience	Qualification	Assessment	Assessed By	Mutual Recognition
NSW	Mining Engineer Manager of an underground mine (other than a coal mine) (21 years of age)	Minimum of 3 years' experience working in or about a mine, including: (a) Three months work at the face in production or development mining which is to have involved hands-on experience in the drilling charging and firing of blast holes, the loading of ore or mullock, and ground control (b) Nine months practical experience working in an underground metalliferous mine under the control of a mining engineering manager of underground mines other than coal mines, involved in the following mining works: assisting	Bachelor of Mining Engineering issued by an Australian University, or RII60113 Advanced Diploma of Metalliferous Mining (issued by an RTO) Other: Emergency First Aid certificate in accordance with HLTAID003 (issued by an RTO);	Written examination covering Legislation knowledge and Legislation Knowledge and application. Oral examination relating to mining conditions and safety practices in NSW underground mines.	Board of Examiners	Equivalent interstate qualifications are recognised. No further assessment is required provided the certificate holder is undertaking a "like" function. The person will be issued with a NSW Practising Certificate not a NSW Certificate of Competency.

		<p>tradesperson; drilling; ground control (for example, bolting, meshing, shotcreting, timbering, scaling); mine filling; mine servicing, equipment, installations and drainage; ore or mullock haulage and transport; plant operation; roadway and track preparation, servicing and maintenance; shaft, passes and chute inspection and repairs.</p> <p>(c) Eighteen months practical experience involved in mining works as follows: above ground metalliferous mining (limited to three months only); coal mining (limited to three months only); environmental evaluations; mining investigations surveying; mine planning; mine rescue, mine ventilation; quality control; rock mechanics; sampling; supervision; training; tunnelling (limited to three months only); work health and safety in mines.</p> <p>(d) Six months practical experience involved in mining</p>				
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		works as follows: engineering, mine geology, metallurgy, rehabilitation studies.				
WA	First Class Mine Managers Certificate of Competency (25 years of age)	<p>Practical experience in or about a mine for a period of not less than 5 years of which at least 3 has been general underground mining experience and which shall include:</p> <p>Face experience in operating a rockdrill on development and stoping faces for a period of not less than 3 months;</p> <p>Personal experience in using explosives for a period of not less than 3 months; and</p> <p>6 months full time underground employment directly involved in ground support, haulage and transport and general mining services.</p>	<p>A Degree of Bachelor of Engineering in mining from any Australian University or such other qualification that the Board considers to be equivalent thereto.</p> <p>First Aid Certificate</p> <p>Character reference</p>	Mining Law and safety examination	<p>Board of Examiners.</p> <p>Note that in WA there are separate Boards of Examiners for underground and quarry operations, mine surveyor and winding engine driver certificate.</p> <p>Experience and/or qualification for each certificate is prescribed</p>	<p>Equivalent interstate qualifications recognised. There is no need for further assessment by way of written or oral examinations.</p> <p>Equivalent interstate qualification are accepted for the issue of a WA certificate of competency.</p>
Queensland	First Class Mine Managers Certificate of	At least 3 years mining experience, of a nature and standard acceptable to the Board,	Bachelor of Engineering (Mining), University of	<p>Written and oral examination</p> <p>To gain a certificate, the</p>	Board of Examiners	All persons seeking to have their interstate

	<p>Competency Underground Metalliferous Mine</p>	<p>in and around an underground mine, of which at least 2 years underground mining activity is in a metalliferous mine, including at least 9 months mine, of which at least 2 years underground mining activity is in a metalliferous mine, including at least 9 months directly involved in face operations, including:</p> <ol style="list-style-type: none"> <li>1. at least 16 weeks directly involving work in mine development or stoping, with personal experience in the handling and use of explosives, and</li> <li>2. at least 10 weeks experience in at least 2 of the following <ul style="list-style-type: none"> <li>- ground support systems</li> <li>- transport of ore, waste, supplies and equipment</li> <li>- stope preparation and filling</li> <li>- shaft maintenance.</li> </ul> </li> </ol> <p>At least 9 months having been a front line supervisor in direct control of and instructing a team of people engaged in mining activities in an underground mining situation, including directly</p>	<p>Queensland or a degree, diploma or other qualification in mining engineering recognised by the Board of Examiners, or Graduate Diploma in Mining or Mining Engineering from a recognised tertiary institution which is acceptable to the Board, based on a selection of modules/units/courses acceptable to the Board.</p> <p>The person must also have:</p> <p>current HLTF311A Apply First Aid including HLTCP211A Cardiopulmonary Resuscitation (CPR)</p> <p>RIIRIS601A Establish the risk management system, or equivalent.</p>	<p>applicant needs to pass a written law exam, then sit an oral exam on mining practice. The person must pass the written test before they can sit the oral exam.</p>		<p>statutory certificates of competency registered in Queensland must first undertake and pass an examination in such of the Queensland mining safety and health law as is applicable to their certificate of competency and must hold relevant risk management competencies.</p>
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		controlling the mine physical environment				
Victoria	Statutory certification of mine managers is not required	NA	NA	NA	NA	NA
Tasmania	A Certificate of Competency for Mine Managers is not issued in Tasmania. There is no statutory requirements for a certificate. There is however a statutory requirement that the Site Senior Officer appoint a person with relevant experience and qualifications. In situations where the mine is working more than 10,000 hours in a month, the Site Senior Officer must hold prescribed	Risk management training (unstated) or relevant experience. 'Relevant' experience to be determined by the mine operator.	A university degree in Mining Engineering or an equivalent qualification.	No further assessment is required. The obligation rests upon the Mine Operator to ensure that statutory requirements (degree or equivalent and experience/risk management training) have been met and the designated person is competent to occupy the position.	There is no Board of Examiners, the duty to ensure that people are competent is with the workplace.	Mutual recognition does not apply because certificates are not issued.

	qualifications					
NT	No equivalent qualification	NA	NA	NA	NA	NA
ACT	“	“	“	“	“	“

**Template for comment in response to Discussion Points for review of Mine Manager Competency Requirements in South Australia.**

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1. Is statutory certification the best means of assuring the competency of mine managers?  
*Or Do the new Work Health and Safety laws (management systems and principal hazard management plans address the safety role of a certificated mine/quarry manager?*

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2. Is the number of workers engaged at the mine over a particular period of time, a relevant threshold for the requirement to engage a competent mine manager?

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3(a) Is a fit and proper person test a reasonable requirement for a mine manager?

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3(b) Should such a test be set in law?

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4(a). Should the requirement of experience for a mine manager be included in law?

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4(b). Should specific elements of experience (eg 3 years) be prescribed?

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5. Should an age limit be a prescribed requirement for a mine manager?

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6(a). Is a degree or diploma (or equivalent) an appropriate qualification for a mine manager?

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6(b) Should the law specify the type of qualification (eg mining engineering) that is required?

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7(a). Is an examination on mining law, environment and safety necessary?

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7(b). Should it be the responsibility of the regulator to determine a person's understanding of mining law and safety?

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