

GUIDE

APPLYING FOR A CERTIFICATE OF COMPETENCE

Work Health and Safety (Mines and Petroleum Sites) Regulation 2014



Work Health and Safety (Mines and Petroleum Sites) Regulation 2014



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November 2018	6	4. Assessment fees – to paid with applications 5.2 - Practical experience to be signed off by face manager or MEM only 5.3 - Requirement for First aid competency removed All written exams to be closed book. References to open book exam papers removed Only the nominated, prior superseded version of emergency preparedness unit is acceptable Guide now reflects approach that person applies for examination and then certificates.
February 2019	7	Removing prequalification examination for Manager Mining Engineer for underground coal mine and Undermanager underground coal mine, in lieu of pre-requisite qualifications





August 2019	8	Updated department references and branding. Added information in sections 6. and 7. on Associated Non-technical Skills (ANTS) to be examined in written and oral exams as per Assessing associated non-technical skills (ANTS) competencies for certificates of competence (PUB16/349/DOI)
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		Changes to authorised person signing off experience.
July 2020	10 (3 for 2020)	Added new experience requirements from 1 April 2021 for each certificate in attachment A with guidance in appendix B. Minor changes to section 3 to clarify fees payable. Updates to emergency preparedness units of competence pre-requisites codes.
November 2020	11(4 for 2020)	Revised introduction to 5.3 and appendix B to clarify that new experience requirements apply to any exam closing date after 1 April 2021.
May 2021	12	Applications to be made through Resources Regulator portal from June 2021. In appendix A qualifications pre-requisites updated to current versions and more guidance added for mechanical and electrical exam papers. Former experience requirements removed with further guidance in appendix B for the new.

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1. Introduction

This guide provides information to assist applicants for a certificate of competence (and the associated examinations) and practising certificate for the following statutory functions:

- Mining engineering manager of underground coal mines
- Electrical engineering manager of underground coal mines
- Mechanical engineering manager of underground coal mines
- Undermanager of underground coal mines
- Deputy of underground coal mines
- Mining engineering manager of coal mines other than underground mines
- Open cut examiner of coal mines other than underground mines
- Electrical engineer of coal mines other than underground mines
- Mechanical engineer of coal mines other than underground mines
- Mining engineering manager of underground mines other than coal mines
- Underground mine supervisor of underground mines other than coal mines
- Quarry manager of mines other than underground mines or coal mines

This guide includes information about eligibility to be granted a certificate of competence (including the examination process) and a practising certificate. The NSW Resources Regulator conducts examinations for the NSW Mining and Petroleum Competence Board. The Board advises the regulator on the competencies required for certificates of competence and the conduct of assessments.

Under the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014 (WHS (MPS) Regulation), a person can only exercise a statutory function if they are nominated by a mine operator. A person may only be eligible to be nominated for certain statutory functions if they satisfy the requirement for the nomination which may be to have a practising certificate. A person may hold a practising certificate for certain functions if they hold a certificate of competence.

A person is eligible to hold a certificate of competence for a statutory function if the regulator is satisfied that the individual is competent to exercise that function. Under clause 146 of the WHS (MPS) Regulation, the criteria to satisfy includes passing a specified exam, holding specified qualifications and experience and being above a certain age.

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Note: If you already hold a certificate of competence, the application for a practising certificate for statutory functions requiring a certificate of competence is available through our Resources Regulator <u>portal</u> and guidance is available on our <u>website</u>.

1.1. Briefing session

Briefing sessions are conducted by examination panel members and provide applicants with information on the application and examination process. Although sessions are optional, applicants are strongly encouraged to attend.

Briefing sessions are free and are generally held between one and three months before the closing date of an exam.

Register your interest in attending a briefing session at least one month before the session on the <u>Exams and Briefing Sessions webpage</u> and select the link to access the event. Contact us at <u>mca@planning.nsw.gov.au</u> for further information.

2. Application process

There are three steps in the application and assessment process:

- Step 1 apply for a certificate of competence once you know you can meet the pre-requisites (see section 8)
- Step 2 should you meet all prerequisite requirements, you will be invited to sit an exam (written exam see section 6, oral exam see section 7)
- Step 3 apply for a practising certificate (see section 9).

Exams for certificates of competence will be held at least annually. Closing dates for applications and exams are advertised in the safety and health area on our website.

3. Fees

An initial application fee is payable <u>with</u> submission of your application for a certificate of competence. Refer to the exam fees <u>factsheet</u> on our website for the current application fee (refer step 2 above).

You must provide details of payment of the required fee in the application portal so that your application will be processed. Once your application is received and processed, the application fee is non-refundable, even if your application is incomplete, unsuccessful or you withdraw.

If your application is approved (refer section 5), you will be provided with a link in your invitation letter to pay the required exam fee to sit the exam. If we do **NOT** receive payment of the exam fee by the specified date in the letter, you will **NOT** be authorised to sit. You should pay with sufficient time to enable the payment to be receipted by the due date.

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If you notify us of your withdrawal from the exam prior to sitting, your exam fee will be refunded less an administration fee of \$50.

Note: Your financial institution for payment may charge you costs in addition to the fee required

4. Age

The minimum age at which a person will be issued with a certificate of competence is 21. However, you may make application for examinations and for a certificate of competence and practising certificate before turning 21.

5. Application for certificate of competence with examinations

An application should be made online through the Resources Regulator portal.

Your application must include supporting information/documents as evidence that you satisfy each of the following prerequisite requirements for a certificate of competence:

- tertiary qualifications (section 5.1)
- emergency preparedness unit (section 5.2) Note: first aid certificate is no longer required
- relevant practical experience (section 5.3)
- certifying documents (section 10)
- identity verification (section 11)

Applicants must ensure applications they submit (including supporting documentation) are accurate and complete. Failure to submit an accurate and complete application could result in an application being delayed or not accepted. Offences under the *Work Health and Safety Act 2011* and the *Crimes Act 1900* apply to the giving of false and misleading information.

Applications must be submitted by the advertised closing date with the required fee (see section 3). **NO LATE, INCOMPLETE OR UNPAID APPLICATIONS WILL BE ACCEPTED**.

All supporting documentation **must be certified** as a true copy by an authorised certifier who is an independent third party. Information about how to certify documents and who can certify them can be found in section 10 of this guide.

You will be notified of the outcome of your application and if successful, you will be invited to sit an exam. You must pay the required exam fee before the specified due date in the invitation letter so you can sit the exam.

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When you have passed all parts of the written and oral exams applicable to the certificate of competence you require, you will progress to the next stage for granting a certificate of competence, followed by a practising certificate.

5.1. Tertiary qualifications

An application must be accompanied by evidence that you have the required tertiary qualifications. The required tertiary qualifications for each certificate of competence are detailed in Appendix A – prerequisites and written exam details.

Your application must include certified copies of your tertiary qualifications, including certificates, statements of attainment or transcripts listing completed subjects.

If you hold a qualification that is not the current one specified in Appendix A, you will need to check if your qualification is recognised as equivalent. The Australian Qualifications Framework (AQF) indicates the equivalence of superseded qualifications of units of competence against the current release and you can check this at www.training.gov.au

Other qualifications may be accepted if they are equivalent to the required tertiary qualifications detailed in Appendix A. You must provide a statement from an Australian university, Engineers Australia or an Australian registered training organisation (RTO) that verifies the equivalency of the qualifications with those detailed in Appendix A. You should allow sufficient time for a provider to provide the statement for submission by you prior to the application closing date.

If you have an overseas qualification it may be recognised in accordance with the Washington, Sydney or Dublin Accord as being equivalent to an Australian required tertiary engineering qualification. For further information, contact the Mining Competence Team on 02 4063 6461.

5.2. Emergency preparedness unit of competency

An application must be accompanied by certified documents showing you have been issued with the required unit of competence in emergency preparedness and response specified in Appendix A. Acceptable documents could be either:

- statement of attainment, or
- transcript of units completed that includes the required unit

Only the current release of the unit or a previous superseded version that is equivalent (as specified on the AQF related website www.training.gov.au) will be acceptable. Applicants with versions prior to these (eg deleted status) may contact a Registered Training Organisation (RTO) with the required unit of competency on their scope to determine whether with further training or recognition of prior learning the current unit can be issued to you.

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Contact us on 02 4063 6461 for advice if you have other emergency preparedness credentials. You must provide a statement from an acceptable Australian tertiary organisation (refer 5.1) to verify the equivalency of the qualifications with those detailed in Appendix A.

Note: a first aid certificate is no longer a requirement

5.3. Practical experience

Note: Experience prerequisites have changed from 1 April 2021 for new applicants only. Candidates already approved and undertaking examinations can continue to do so as per appendix B.

5.3.1. Completing application

An application must contain sufficient details that you have the required practical experience as detailed for each certificate of competence in Appendix A – prerequisites and written exam details.

Applicants should refer to Appendix B – experience prerequisites for guidance on the type of activities that may qualify as meeting the experience requirements. You can view a sample of completed experience entries on our website.

You must complete the practical experience section in the online application with dates from and to for each position. If you are still working in the position, enter the date you are completing your application in the 'date to' column. Your application will not be able to be submitted if you do not comply. Refer to guidance on our website with a Logbook of experience and mine visits to assist you in compiling your experience and having it verified.

5.3.2. Appropriate practising certificate holder verifying

For each entry of experience the full name, contact phone number and email address of the appropriate practising certificate person who is verifying that entry is required. The person must be able to verify your experience and suitability by knowing the tasks that you have performed or having viewed a separate logbook of your experience with each entry verifiable and/or signed off by your supervising manager.

Refer to our Guidance and study tools section on our <u>website page</u> to download a 'Logbook for experience and visits to mines' that can assist you with recording and obtaining agreement to verify your experience.

By providing the contact information of the appropriate persons, you authorise us to make contact to confirm your experience and seek any additional relevant details to determine whether the prerequisite experience requirements have been satisfied.

You must have the minimum amount of experience specified in the pre-requisites verified. Only the following people who practise in the relevant statutory function at the mine class involved can verify your experience and its suitability:

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- Mining Engineering Manager (MEM) for underground (UG) coal mines for MEM UGs,
 Undermanagers and Deputies
- Electrical Engineering Manager (EEM) for EEMs
- Mechanical Engineering Manager (MEM) for MEMs
- MEM for coal mines other than underground for MEMs and Open Cut Examiners
- Electrical Engineer (EE) for EEs
- Mechanical Engineer (ME) for MEs
- Quarry Manager (QM) for QMs
- MEM for underground mines other than coal for MEMs and Underground Mine Supervisors

If you are unable to contact and have one of the above appropriate persons agree to verify your experience entry to have the minimum amount of experience required signed off, you must contact us on 02 4063 6461.

5.4. Blasting experience no longer required

Blasting experience is no longer a pre-requisite for the following certificates:

- Quarry Manager of mines other than underground mines or coal mines, or
- Mining Engineering Manage of underground mines other than coal.

Applicants should refer to Appendix B – experience prerequisites for guidance on blasting experience that is recommended for candidates for the above functions to seek out and obtain. This experience may assist them in attempting the examinations.

5.5. Processing applications

You should submit your application on the <u>Resources Regulator portal</u> with sufficient time before the advertised closing date if you wish to participate in the advertised exam date.

You will be notified of the outcome of your application as soon as possible before the examination date. If successful, you will be invited to progress to the examination via an email and letter requesting you confirm your attendance with payment of the required exam fee prior to the date specified. Details will not be provided over the telephone.

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6. Written examination

NOT APPLICABLE TO UNDERGROUND MINE SUPERVISOR APPLICANTS

If your application is successful you will be invited to sit for a written exam. You are required to pay the written exam fee by the date specified using the link provided in your email invitation. If you notify us of your withdrawal from the exam prior to sitting, your exam fee will be refunded less an administration fee of \$50.

The written exam consists of papers as detailed for each certificate in Appendix A.

All written exam papers are **closed book** exams. You will be provided with any reference material required in the examination. Refer to Appendix A for details.

The pass mark for **each individual** written exam paper is 60%.

You may choose to sit for one or more papers at any exam date. You will receive a three-year credit for a pass in any individual paper. At the end of this three-year period, the credit will expire.

A pass for each paper in the written exam is a prerequisite for undertaking the oral exam.

Both the written and oral exams involve assessing your associated non-technical skills (that is people skills). View our website for information.

6.1. Resitting an examination

If you do not pass a paper of the written exam, you will need to apply for a re-examination before the written and oral exam closing date on our <u>examination calendar</u>.

The application for re-examination is available through:

• For functions with exam closing dates before the end of May 2021, resit exam application forms will be emailed to all existing approved candidates to submit completed to mca@planning.nsw.gov.au, or the Resources Regulator portal for application closing dates in 2021-2022 financial year exam calendar

Payment of the application fee must be made by selecting the appropriate link on our fees schedule under step 2 of our How to apply page. Payment details must be included on your application. An application without payment will NOT be accepted.

If your eligibility and details are successfully confirmed in your application, then you will be invited to resit for remaining written exams you are to undertake. You are required to pay the written exam fee, for the number of remaining written exam papers you choose to sit, by the date specified using the link provided in your invitation letter.

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7. Oral exam

When you pass all written exams (within a three-year credit period from the last exam passed) you will be invited to sit for an oral exam. You are required to pay the oral exam fee by the date specified using the link provided in your invitation email. If you notify us of your withdrawal from the exam prior to sitting, your exam fee will be refunded less an administration fee of \$50.

The oral exam will relate to mining WHS legislation, conditions and safety practices in NSW mines. It may include subject matter from the question papers of the written exam if applicable. In addition, the examiners may ask questions relating to your practical experience (see section 5.3 of this guide).

To pass the oral exam, the examiners must assess you as being 'competent'. This will include assessing your <u>associated non-technical skills</u> and those competencies listed for the statutory function descriptions (refer to 6.0).

7.1. Resitting an examination

If you are assessed as 'not yet competent' at your first oral exam, you will be permitted to attempt the oral exam two more times within three years of passing the written exam. You are required to lodge a reexamination online application before the written and oral exams closing date, or post oral exam closing date. You must pay the application fee for each subsequent attempt of the oral exam at the time of applying online. Refer to the link to our fees schedule under step 2 of our How to apply page and include details of the payment in the application.

If you are approved to re-sit, you will be required to pay the oral exam fee by the date specified in your invitation letter using the link provided.

If you fail three attempts of the oral exam, you must re-apply to sit and pass the written exam before you will be permitted to make further attempts at the oral exam.

If you are sitting the underground mine supervisor exam and are assessed as 'not yet competent' you must submit an application to re-sit the oral exam before the closing date.

The application for re-examination is available for completion through the Resources Regulator portal.

8. Certificate of competence

You can be granted a certificate of competence at the submission of all requirements noted in Appendix A along with the successful completion of your exams as outlined in sections 6 & 7 of this Guide. You must complete the section of the application to indicate you are applying for a certificate of competence.

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9. Practising certificate

You can be granted a practising certificate upon being granted a certificate of competence. You will need to complete the section of the application to obtain one. If you do not apply for a practising certificate now but do later, then you will be required to will be required at a minimum to complete 20% more learning to satisfy the maintenance of competence condition in the first year of the certificate issue period. Refer to our Application for practising certificate webpage and Guide: maintenance of competence.

If you already hold a practising certificate, then you will be reissued with a new version to include the function for which you receive a certificate of competence.

10. How to certify documents

A certified copy of a document is a photocopy of the original document/card that has been certified as a true copy of the original by an authorised certifier.

Follow the steps below to have documents certified:

- 1. Make a photocopy of the original documents, both sides if applicable eg. drivers licence to show change/no change of address. Ensure the copies are clear and legible.
- 2. Take the copies with the original documents to one of the authorised certifiers listed below.
- 3. An authorised certifier must ensure the copy is an identical copy of the original document/card. The preferred wording for the certification is as follows:

'I certify this to be a true copy of the document shown and reported to me as the original.'

The certification must be on each page of the document and accompanied by the certifier's signature, full name, profession (for example, Justice of the Peace), registration number (if applicable) and date.

Certification must be made by an independent third party. Avoid using an approved certifier where a perceived conflict of interest may exist (for example, spouse, family member, or a party to the examination process). The Resources Regulator reserves the right to refuse to accept documents on the grounds of incorrect certification or request an independent certifier where a perceived conflict of interest may exist.

If the original document is not in English, the applicant is to provide a certified copy of the written translation (by an authorised translation service, such as an appropriate embassy or a professional translation service accredited by the <u>National Accreditation Authority for Translators and Interpreters Ltd</u>).

10.1. Authorised certifiers

There are many people from a broad spectrum of professions who can certify copies of original documents. The NSW Resources Regulator will accept any of the following:

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- Justice of the Peace (with a registration number in the state in which they are registered)
- police officer
- judge of a court
- Sheriff's officer
- barrister
- solicitor
- health professional registered with the Australian Health Practitioner Regulation Agency (e.g. doctor, pharmacist, optometrist, nurse).

11. Identity verification

The Resources Regulator uses a verification procedure for the purposes of obtaining an identification record for applicants. You must provide documentation to verify all of the following:

- full legal name
- gender
- date of birth
- place of birth
- residential address

You must supply one document from Group A documents and one document from Group B documents (refer below).

The documents must:

- be certified as true copies of the original document by an authorised certifier, and
- be current unless otherwise stated below.

11.1. Group A documents

Must have name, date of birth and place of birth. Documents to support a change of name should also be supplied if applicable.

birth certificate

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- current passport
- expired passport that has not been cancelled and was current within the preceding two years
- other documents of identity having the same characteristics as a passport including diplomatic documents and some documents issued to refugees

11.2. Group B documents

Must be in date (not expired), and contain photograph, name and current residential address.

- driver's licence issued by an Australian state or territory (both sides to indicate change or no change of address)
- roads and maritime services (formerly RTA) photo card
- identification card issued to a public employee
- identification card issued by the commonwealth, a state or territory government as evidence of the person's entitlement to a financial benefit

If you are unable to verify your identity by supplying one document from each of the group above, please contact the Mining Competence Team at mca@planning.nsw.gov.au.

12. Further information

Further information is available on our <u>website</u>. If you have specific information query, you may contact the Mining Competencies team: (02) 4063 6461, or mca@planning.nsw.gov.au.



13. Appendix A - prerequisites and written examination details

This appendix covers the prerequisites and written examination details for a certificate of competence of the following statutory functions:

- Mining engineering manager of underground coal mines
- Electrical engineering manager of underground coal mines
- Mechanical engineering manager of underground coal mines
- Undermanager of underground coal mines
- Deputy of underground coal mines
- Mining engineering manager of coal mines other than underground mines
- Open cut examiner of coal mines other than underground mines
- Electrical engineer of coal mines other than underground mines
- Mechanical engineer of coal mines other than underground mines
- Mining engineering manager of underground mines other than coal mines
- Underground mine supervisor of underground mines other than coal mines
- Quarry manager of mines other than underground mines or coal mines

This document provides details of the following:

- mining qualifications (see section 5.1 of the guide)
- emergency preparedness unit of competency (see section 5.2 of the guide)
 - practical experience (see section 5.3 of the guide) Note: changed experience requirements from 1 April 2021 are now applicable for all new applicants. Applicants applying for re-examination of an exam will not be required to meet these new requirements unless they do not pass the assessments within the allowed period (see section 6 & 7 of the guide).



13.1. Mining engineering manager of underground coal mines

13.1.1. Prerequisites

A Stage 1 – application for examination must be accompanied by evidence that you have the following:

PREREQUISITE	REQUIREMENT	
Tertiary qualification	 Any one of the following: Bachelor of Mining Engineering issued by an Australian university, or RII60320 Advanced Diploma of Underground Coal Mining Management issued by a registered training organisation (the superseded qualifications RII60315 & RII60313 Advanced Diploma of Underground Coal Mining Management, or other equivalent superseded unit number is acceptable) 	
Practical experience (refer to appendix B for guidance)	A minimum of five years* practical underground coal mine experience, including: a minimum three years being present: with a minimum 1 year at an extraction face during production or development works and during other mining activities (this must be included in the five years of experience required above a minimum two years in a supervisory role responsible for the control and management of underground coal mining operations, with minimum 1 year in mining activities at the mine. (* in the five years of experience, up to one year in any other class of mine may be included)	





PREREQUISITE	REQUIREMENT
Identity verification	Refer to section 11 of the guide for examinations and certificate of competence.
Emergency preparedness unit	RIIERR602E Establish and maintain underground coal mine emergency preparedness and response systems, issued by a registered training organisation (the superseded unit numbers RIIERR602D & RIIERR602A Establish and maintain underground coal mine emergency preparedness and response systems or other equivalent superseded unit number, is acceptable).

13.1.2. Written examination details

The written examination consists of the following papers:

PAPER	METHOD OF EXAMINATION	DURATION OF PAPER
MB1 – Legislation	Closed book	1 hour
MB2 – Mine ventilation	Closed book	3 hours
MB3 – Coal mining practice	Closed book	3 hours

MB1 – Legislation

You will be required to demonstrate a working knowledge of the *Work Health and Safety Act 2011, Work Health and Safety (Mines and Petroleum Sites) Act 2013, Explosives Act 2003* and their supporting Regulations as they relate to the duties of a mining engineering manager.

MB2 – Mine ventilation

You will be required to provide answers to practical problems having regard to safety considerations and legal requirements using mine plans supplied.

One question will be based on overall ventilation of a mine relative to the environment described in the question. The other question will be a combination of practical application of ventilation related management systems and providing solutions to ventilation related problems.

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You will need to demonstrate your knowledge of where equipment is located according to ventilation requirements and what actions are performed to comply with legislative obligations. You will need to make certain assumptions about the mining workplace to answer the questions and provide an explanation as to how the assumptions relate to the mining workplace described in the question.

MB3 - Coal mining practice

This paper will deal with the interpretation and application of mining and engineering principles together with relevant aspects of mining legislation. You will be expected to have knowledge of safe working procedures and the causes and prevention of mine incidents.



13.2. Electrical engineering manager of underground coal mines

13.2.1. Prerequisites

A Stage 1 – application for examination must be accompanied by evidence that you have the following:

PREREQUISITE	REQUIREMENT	
Tertiary qualification	Any one of the following: Bachelor of Engineering (Electrical) issued by an Australian university, or	
	■ UEE62320 Advanced Diploma of Electrical Engineering – Coal Mining issued by a registered training organisation (the superseded unit number UEE62311 Advanced Diploma of Electrical Engineering – Coal Mining or other equivalent superseded unit number, is acceptable), or	
	UEE62220 Advanced Diploma of Electrical Engineering issued by a registered training organisation (the superseded unit number UEE62211 Advanced Diploma of Electrical Engineering or other equivalent superseded unit, is acceptable).	
Practical experience (refer to appendix B for guidance)	 a minimum two years involved in the installation, commissioning maintenance and repair of electrical plant and installations (this must be part of the five years of experience required above) within that two years' experience above, one year must be part of the five years' experience above, one year must be part of the five years' experience. 	
	 involve for electrical plant and installations: a minimum 6 months at an extraction face during production or development works and during other mining activities 	

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PREREQUISITE	REQUIREMENT
	 a minimum two years in a supervisory role responsible for electrical plant and installations at an underground coal mine
	* in the five years of experience, up to one year in any other class of mine and up to one year working as an electrical engineer in another industry may be included.
Identity verification	Refer to section 11 of the guide for certificate of competence.
Emergency preparedness unit	RIIERR602E Establish and maintain underground coal mine emergency preparedness and response systems, issued by a registered training organisation (the superseded unit numbers RIIERR602D & RIIERR602A Establish and maintain underground coal mine emergency preparedness and response systems, or other equivalent superseded unit number is acceptable).

13.2.2. Written examination details

The written examination consists of the following papers:

PAPER	METHOD OF EXAMINATION	DURATION OF PAPER
CEE1 – Electrical engineering applied to coal mines	Closed book	3 hours
CEE2 – Legislation & Australian Standards applicable to underground mines	Closed book	3 hours

Work Health and Safety (Mines and Petroleum Sites) Regulation 2014



CEE1 – Electrical engineering applied to coal mines

This paper will deal with the interpretation and application of mining and engineering principles and Australian Standards together with relevant aspects of mining legislation. You will be expected to have a working knowledge of:

- knowledge of safe working procedures and the causes and prevention of mine incidents.
- identification and management of electrical hazards for different mining operations
- maintenance and operation of electrical plant and structures regularly used at that type of mine, including explosion protected plant.

CEE2 – Legislation & Australian Standards applicable to underground mines

You will be required to demonstrate a working knowledge of the *Work Health and Safety Act 2011, Work Health and Safety (Mines and Petroleum Sites) Act 2013,* and their supporting regulations, as they relate to the duties of an electrical engineering manager of underground coal mines. You will also be required to:

- understand the implications and management of gazettal notices related to the electrical engineering aspects of coal mines.
- know all the legislative requirements for the role, and the specific requirements for the Electrical Engineering Control Plan for that type of mine
- demonstrate a working knowledge on key Australia Standards applicable to coal mining.

Work Health and Safety (Mines and Petroleum Sites) Regulation 2014

13.3. Mechanical engineering manager of underground coal mines

13.3.1. Prerequisites

A Stage 1 – application for examination must be accompanied by evidence that you have the following:

PREREQUISITE	REQUIREMENT
Tertiary qualification	 Any one of the following: Bachelor of Engineering (Mechanical Engineering) issued by an Australian university, or Bachelor of Engineering issued by an Australian university in the following areas of practice (or equivalent):
	Mechatronics
	Manufacturing
	Maintenance
	Aeronautical
	Avionics
	Refrigeration
	Automotive
	and, eligible to be registered as an Engineer in the Engineering Australia Mechanical college by Engineers Australia.
	MEM60112 Advanced Diploma of Engineering (Mechanical) issued by a registered training organisation (the superseded qualification MEM60111 Advanced Diploma of Engineering, or other equivalent superseded qualification is acceptable), or
	Associate Diploma of Engineering (Mechanical Engineering) issued by a registered training organisation.



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PREREQUISITE	REQUIREMENT	
Practical experience (refer to appendix B for guidance)	A minimum of five years* practical underground coal mine experience, including:	
	a minimum two continuous years involved in the installation, commissioning, maintenance and repair of mechanical plant (this must be included in the five years of experience above), and	
	within that two years' experience above, one year must involve mechanical plant:	
	 with a minimum 6 months at an extraction face during production or development works and during other mining activities 	
	a minimum two years in a supervisory role responsible for the control and management of mechanical plant at an underground coal mine.	
	* In the five years of experience, up to one year in any other class of mine and one year working as a mechanical engineer in another industry may be included.	
Identity verification	Refer to section 11 of the guide for certificate of competence.	
Emergency preparedness unit	RIIERR602E Establish and maintain underground coal mine emergency preparedness and response systems, issued by a registered training organisation (the superseded unit numbers RIIERR602D & RIIERR602A Establish and maintain underground coal mine emergency preparedness and response systems, or other equivalent superseded unit number is acceptable).	



13.3.2. Written examination details

The written examination consists of the following papers:

PAPER	METHOD OF EXAMINATION	DURATION OF PAPER
CME1 – Mechanical engineering applicable to underground coal mines	Closed book	3 hours
CME2 – Legislation and Australian Standards applicable to underground coal mines	Closed book	2 hours

CME1 - Mechanical engineering applicable to underground coal mines

This paper will deal with the interpretation and application of mining and engineering principles and Australian Standards together with relevant aspects of mining legislation. You will be expected to have a working knowledge of:

- safe working procedures and the causes and prevention of mine incidents
- identification and management of mechanical hazards for different mining operations
- maintenance and operation of mechanical plant and structures regularly used at that type of mine

CME2 – Legislation and Australian Standards applicable to underground coal mines

You will be required to demonstrate a working knowledge of the *Work Health and Safety Act 2011, Work Health and Safety (Mines and Petroleum Sites) Act 2013*, and their supporting Regulations, as they relate to the duties of a mechanical engineering manager of underground coal mines. You will also be required to:

- understand the implications and management of gazettal notices related to the mechanical engineering aspects of coal mines.
- know all the legislative requirements for the role, and the specific requirements for the Mechanical
 Engineering Control Plan for that type of mine
- demonstrate a high level of knowledge on key Australia Standards applicable to coal mining.



13.4. Undermanager of underground coal mines

13.4.1. Prerequisites

A Stage 1 – application for examination must be accompanied by evidence that you have the following:

PREREQUISITE	REQUIREMENT
Tertiary qualification	 Any one of the following: Bachelor of Mining Engineering issued by an Australian university, or RII50920 Diploma of Underground Coal Mining Management issued by a registered training organisation (the superseded qualifications RII50915 & RII50913 Diploma of Underground Coal Mining Management, or other equivalent superseded qualification is acceptable)
Practical experience (refer to appendix B for guidance)	A minimum of four years practical underground coal mine experience, including: a minimum two years being present: with a minimum 1 year at an extraction face during production or development works, and during other mining activities (this must be included in the four years of experience required above) a minimum one year in a supervisory role responsible for the control and management of underground coal mining operations, with a minimum 6 months in mining activities at the mine.

Identity verification

Refer to section 11 of the guide for certificate of competence.

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PREREQUISITE	REQUIREMENT
Emergency preparedness unit	RIIERR501E Implement underground coal mine emergency preparedness and response systems, issued by a registered training organisation (the superseded units RIIERR501D & RIIERR501A Implement underground coal mine emergency preparedness and response systems, or other equivalent superseded unit number is acceptable).

13.4.2. Written examination details

The written examination consists of the following papers:

PAPER	METHOD OF EXAMINATION	DURATION OF PAPER
UB1 - Legislation	Closed book	1 hour
UB2 - Mine ventilation	Closed book	2 hours
UB3 - Coal mining practice	Closed book	3 hours

UB1 – Legislation

You will be required to demonstrate a working knowledge of the *Work Health and Safety Act 2011, Work Health and Safety (Mines and Petroleum Sites) Act 2013, Explosives Act 2003,* and their supporting Regulations, as they relate to the duties of an undermanager.

UB2 – Mine ventilation

You will be required to provide answers to practical problems having regard to safety considerations and legal requirements using mine plans supplied.

One question will be based on overall ventilation of a mine relative to the environment described in the question. The other question will be a combination of practical application of ventilation-related management systems and providing solutions to ventilation-related problems.

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You will need to demonstrate your knowledge of where equipment is located according to ventilation requirements and what actions are performed to comply with legislative obligations. You will need to make certain assumptions about the mining workplace to answer the questions and provide an explanation as to how the assumptions relate to the mining workplace described in the question.

UB3 – Coal mining practice

This paper will deal with the interpretation and application of mining and engineering principles together with relevant aspects of mining legislation. You will be expected to have knowledge of safe working procedures and the causes and prevention of mine incidents.



13.5. Deputy of underground coal mines

13.5.1. Prerequisites

A Stage 1 – application for examination must be accompanied by evidence that you have the following:

PREREQUISITE	REQUIREMENT	
Tertiary qualification	Any one of the following: Bachelor of Mining Engineering issued by an Australian university, or	
	 RII50920 Diploma of Underground Coal Mining Management issued by a registered training organisation (the superseded qualifications RII50915 & RII50913 Diploma of Underground Coal Mining Management, or other equivalent superseded qualification is acceptable) 	
	RII40420 Certificate IV in Underground Coal Operations issued by a registered training organisation (the superseded qualifications RII40415 & RII40413 Certificate IV in Underground Coal Operations, or other equivalent superseded qualification is acceptable).	
Practical experience (refer to appendix B for guidance)	A minimum of three years practical underground coal mine experience, including:	
	a minimum two years being present:	
	with a minimum 1 year 4 months at an extraction face during production or development works and	
	during other mining activities	
	(this must be included in the three years of experience required above)	
	a minimum six months experience in supervising and/or co- ordinating and/or leading workers involved in underground coal mining activities.	





PREREQUISITE	REQUIREMENT
Identity verification	Refer to section 11 of the guide for certificate of competence.
Emergency preparedness qualification	RIIERR402E Apply and monitor underground coal mine emergency preparedness and response systems, issued by a registered training organisation (the superseded units RIIERR402D & RIIERR402A Apply and monitor underground coal mine emergency preparedness and response systems, or other equivalent superseded unit number is acceptable).

13.5.2. Written examination details

The written examination consists of the following paper:

PAPER	METHOD OF EXAMINATION	DURATION OF PAPER
DEP – Coal mining practice & legislation	Closed book	2.5 hours

DEP – Coal mining practice & legislation

You will be required to demonstrate a working knowledge of the Work Health and Safety Act 2011, Work Health and Safety (Mines and Petroleum Sites) Act 2013, Coal Industry Act 2001, Explosives Act 2003 and their supporting regulations, as they relate to the duties of a deputy.



13.6. Mining engineering manager of coal mines other than underground mines

13.6.1. Prerequisites

A Stage 1 – application for examination must be accompanied by evidence that you have the following:

PREREQUISITE	REQUIREMENT
Tertiary qualification	 Any one of the following: Bachelor of Mining Engineering issued by an Australian university, or RII50120 Diploma of Surface Operations Management issued by a registered training organisation (the superseded qualifications RII50115 & RII50113 Diploma of Surface Operations Management, or other equivalent superseded qualification is acceptable)
Practical experience (refer to appendix B for guidance)	A minimum of five years* practical coal mine other than underground experience, including: a minimum three years being present: with a minimum 1 year in a production area involving the extraction of waste or coal associated activities and during other mining activities related to the extraction of waste or coal (this must be included in the five years of experience above) a minimum two years in a supervisory role responsible for the control and management of coal mining operations other than underground, with minimum 1 year fulfilling the functions of an Open Cut Examiner at the mine.

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PREREQUISITE	REQUIREMENT
	* In the five years of experience, up to one year working in any other class of mine may be included.
Identity verification	Refer to section 11 of the guide for certificate of competence.
Emergency preparedness qualification	RIIERR601E Establish and maintain mine emergency preparedness and response systems, issued by a registered training organisation (the superseded units RIIERR601D and RIIERR601A Establish and maintain mine emergency preparedness and response systems, or other equivalent superseded unit number is acceptable).

13.6.2. Written examination details

The written examination consists of the following papers:

PAPER	METHOD OF EXAMINATION	DURATION OF PAPER
OCM1 – Legislation	Closed book	1 hour
OCM2 – Open cut mining practice	Closed book	3 hours

OCM1 – Legislation

You will be required to demonstrate a working knowledge of the *Work Health and Safety Act 2011, Work Health and Safety (Mines and Petroleum Sites) Act 2013, Explosives Act 2003*, and their supporting Regulations, as they relate to the duties of a mining engineering manager. You will also be required to demonstrate a working knowledge on key Standards and guidelines applicable to surface coal mining.

OCM2 – Open cut mining practice

This paper will deal with the interpretation and application of mining and engineering principles together with relevant aspects of mining legislation. You will be expected to have knowledge of the mining environment and associated risk, safe working procedures and the causes and prevention of mine incidents.



13.7. Open cut examiner of coal mines other than underground mines

13.7.1. Prerequisites

A Stage 1 – application for examination must be accompanied by evidence that you have the following:

PREREQUISITE	REQUIREMENT
Tertiary qualification	 Any one of the following: Bachelor of Mining Engineering issued by an Australian university, or RII40220 Certificate IV in Surface Coal Mining (Open Cut Examiner) issued by a registered training organisation (the superseded qualifications RII40215 & RII40213 Certificate IV in Surface Coal Mining (Open Cut Examiner), or other equivalent superseded qualification is acceptable).
Practical experience (refer to appendix B for guidance)	A minimum of three years practical coal mine other than underground experience*, including: a minimum two years being present: with a minimum 1 year in a production area involving the extraction of waste or coal and associated activities and during other mining activities related to the extraction of waste or coal (this must be included in the three years of experience above) a minimum six months experience in leading, supervising or co-ordinating workers involved in the extraction of waste or coal and associated activities.

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PREREQUISITE	REQUIREMENT	
	*Refer to Further specific guidance for certificates section of Appendix B	
Identity verification	Refer to section 11 of the guide for certificate of competence.	
Emergency preparedness qualification	RIIERR401E Apply and monitor surface operations emergency preparedness and response systems, issued by a registered training organisation (the superseded units RIIERR401D and RIIERR401B Apply and monitor surface operations emergency preparedness and response systems, or other equivalent superseded unit number is acceptable).	

13.7.2. Written examination details

The written examination consists of the following papers:

PAPER	METHOD OF EXAMINATION	DURATION OF PAPER
OCE1 – Legislation	Closed book	1 hour
OCE2 – Practical Open Cut Operations	Closed book	2 hours

OCE1 – Legislation

You will be required to demonstrate a working knowledge of the *Work Health and Safety Act 2011, Work Health and Safety (Mines and Petroleum Sites) Act 2013, Explosives Act 2003*, and their supporting Regulations, as they relate to the duties of an open cut examiner. You will also be required to demonstrate a working knowledge on key Standards and guidelines applicable to the supervision of surface coal mining activities.

OCE2 – Practical Open Cut Operations

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This paper will deal with the interpretation and application of mining and engineering principles together with relevant aspects of mining legislation. You will be expected to have knowledge of safe working procedures and the causes and prevention of mine incidents.



13.8. Electrical engineer of coal mines other than underground mines

13.8.1. Prerequisites

A Stage 1 – application for examination must be accompanied by evidence that you have the following:

PREREQUISITE	REQUIREMENT	
Tertiary qualification	Any one of the following: Bachelor of Engineering (Electrical Engineering) issued by an Australian university, or	
	■ UEE62320 Advanced Diploma of Electrical Engineering – Coal Mining issued by a registered training organisation (the superseded unit number UEE62311 Advanced Diploma of Electrical Engineering – Coal Mining or other equivalent superseded unit number, is acceptable), or	
	UEE62220 Advanced Diploma of Electrical Engineering issued by a registered training organisation (the superseded unit number UEE62211 Advanced Diploma of Electrical Engineering or other equivalent superseded unit, is acceptable).	
Practical experience (refer to appendix B for guidance)	A minimum of four years* practical coal mine other than underground experience, including:	
	a minimum two years involved in the installation, commissioning, maintenance and repair of electrical plant and installations (this must be included in the four years of experience above), and	
	within that two years' experience, one year must involve electrical plant and installations:	
	 with a minimum 6 months at an extraction face during production or development works and during or other mining activities 	

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PREREQUISITE	REQUIREMENT	
	 a minimum one year in a supervisory role responsible for electrical plant and installations at a coal mine other than underground 	
	*In the four years of experience, up to one year in any other class of mine and one year working as an electrical engineer in another industry may be included.	
Identity verification	Refer to section 11 of the guide for certificate of competence.	
Emergency preparedness qualification	RIIERR601E Establish and maintain mine emergency preparedness and response systems, issued by a registered training organisation (the superseded units RIIERR601D and RIIERR601A Establish and maintain mine emergency preparedness and response systems, or other equivalent superseded unit number is acceptable).	

13.8.2. Written examination details

The written examination consists of the following paper:

PAPER	METHOD OF EXAMINATION	DURATION OF PAPER
CEE3 – Legislation, Australian Standards and electrical engineering applicable to open-cut mining	Closed book	3 hours

CEE3 – Legislation, Australian Standards and electrical engineering applicable to open-cut mining

This paper will deal with the interpretation and application of mining and engineering principles and Australian Standards together with relevant aspects of mining legislation. You will be expected to have knowledge of safe working procedures and the causes and prevention of mine incidents.

- knowledge of safe working procedures and the causes and prevention of mine incidents.
- identification and management of electrical hazards for different mining operations

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 maintenance and operation of electrical plant and structures regularly used at that type of mine, including explosion protected plant.

You will be required to demonstrate a working knowledge of the *Work Health and Safety Act 2011, Work Health and Safety (Mines and Petroleum Sites) Act 2013*, and their supporting Regulations, as they relate to the duties of an electrical engineer of coal mines other than underground coal mines. You will also be required to:

- understand the implications and management of gazettal notices related to the electrical engineering aspects of coal mines.
- know all the legislative requirements for the role, and the specific requirements for the Electrical
 Engineering Control Plan for that type of mine
- demonstrate a working knowledge on key Australia Standards applicable to coal mining.

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13.9. Mechanical engineer of coal mines other than underground mines

13.9.1. Prerequisites

A Stage 1 – application for examination must be accompanied by evidence that you have the following:

PREREQUISITE	REQUIREMENT	
Tertiary qualification	 Any one of the following: Bachelor of Engineering (Mechanical Engineering) issued by an Australian university, or Bachelor of Engineering issued by an Australian university in the following areas of practice (or equivalent): 	
	Mechatronics	
	Manufacturing	
	Maintenance	
	Aeronautical	
	Avionics	
	Refrigeration	
	Automotive	
	and, eligible to be registered as an Engineer in the Engineering Australia Mechanical college by Engineers Australia.	
	MEM60112 Advanced Diploma of Engineering (Mechanical) issued by a registered training organisation (an equivalent qualification issued with a superseded course number is acceptable), or	
	Associate Diploma of Engineering (Mechanical Engineering) issued by a registered training organisation (an equivalent qualification issued with a superseded course number is acceptable).	





PREREQUISITE	REQUIREMENT	
Practical experience (refer to appendix B for guidance)	A minimum four years* practical coal mine other than underground experience, including:	
	a minimum two continuous years involved in the installation, commissioning, maintenance and repair of mechanical plant (this must be included in the four years of experience above), and	
	within that two years' experience, one year must involve mechanical plant:	
	 for a minimum of 6 months at an extraction face during production or development works and during other mining activities 	
	a minimum one year in a supervisory role responsible for the control and management of mechanical plant at a coal mine other than underground	
	*In the four years of experience, up to one year in any other class of mine and one year working as a mechanical engineer in another industry may be included.	
Identity verification	Refer to section 11 of the guide for certificate of competence.	
Emergency preparedness qualification	RIIERR601E Establish and maintain mine emergency preparedness and response systems, issued by a registered training organisation (the superseded units RIIERR601D and RIIERR601A Establish and maintain mine emergency preparedness and response systems, or other equivalent superseded unit number is acceptable).	



13.9.2. Written examination details

The written examination consists of the following papers:

PAPER	METHOD OF EXAMINATION	DURATION OF PAPER
CME3 – Safety and mining legislation for open-cut mines	Closed book	2.5 hours

CME3 – Safety and mining legislation for open-cut mines

This paper will deal with the interpretation and application of mining and engineering principles and Australian Standards together with relevant aspects of mining legislation. You will be expected to have a working knowledge of:

- safe working procedures and the causes and prevention of mine incidents
- identification and management of mechanical hazards for different mining operations
- maintenance and operation of mechanical plant and structures regularly used at that type of mine

You will be required to demonstrate a working knowledge of the *Work Health and Safety Act 2011*, *Work Health and Safety (Mines and Petroleum Sites) Act 2013*, and their supporting Regulations, as they relate to the duties of a mechanical engineer of coal mines other than underground coal mines. You will also be required to:

- understand the implications and management of gazettal notices related to the mechanical engineering aspects of coal mines.
- know all the legislative requirements for the role, and the specific requirements for the Mechanical Engineering Control Plan for that type of mine
- demonstrate a working knowledge on key Australia Standards applicable to coal mining.



13.10. Mining engineering manager of underground mines other than coal mines

13.10.1. Prerequisites

A Stage 1 – application for examination must be accompanied by evidence that you have the following:

PREREQUISITE	REQUIREMENT
Tertiary qualification	 Any one of the following: Bachelor of Mining Engineering issued by an Australian university, or RII60120 Advanced Diploma of Metalliferous Mining issued by a registered training organisation (the superseded qualifications RII60115 & RII60113 Advanced Diploma of Metalliferous Mining, or other equivalent superseded qualification is acceptable).
Practical experience (refer to appendix B for guidance)	A minimum of five years* practical underground mine experience (other than coal), including: a minimum three years being present: with a minimum 1 year at an extraction face during production or development works and during other mining activities (this must be included in the five years of experience required above) a minimum two years in a supervisory role responsible for the control and management of underground mining operations (other than coal), with minimum 1 year in mining activities at the mine. *In the five years of experience, up to one year in any other class of mine may be included.

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PREREQUISITE	REQUIREMENT
Identity verification	Refer to section 11 of the guide for certificate of competence.
Emergency preparedness qualification	RIIERR601E Establish and maintain mine emergency preparedness and response systems, issued by a registered training organisation (the superseded units RIIERR601D and RIIERR601A Establish and maintain mine emergency preparedness and response systems, or other equivalent superseded unit number is acceptable).
Blasting experience	Blasting experience is no longer a pre-requisite. Applicants should refer to Further specific guidance for certificates section of Appendix B

13.10.2. Written examination details

The written examination consists of the following papers:

PAPER	METHOD OF EXAMINATION	DURATION OF PAPER
Paper A – Legislation knowledge	Closed book	1 hour
Paper B – Legislation knowledge and application	Closed book	2 hours

Paper A - Legislation knowledge

You will be required to demonstrate a working knowledge of the *Work Health and Safety Act 2011, Work Health and Safety (Mines and Petroleum Sites) Act 2013, Explosives Act 2003* and their supporting regulations, and the latest version of Australian Standard 2187 Explosives – Storage, Transport and Use, as they relate to the duties of a mining engineering manager.

Paper B – Legislation knowledge and application

You will be required to interpret and apply the applicable legislation with respect to practical situations that may occur at an underground mine. You will be expected to have knowledge of safe working procedures and the causes and prevention of mine incidents.



13.11. Underground mine supervisor of underground mines other than coal mines

13.11.1. Prerequisites

A Stage 1 – application for examination must be accompanied by evidence that you have the following:

PREREQUISITE	REQUIREMENT	
Tertiary qualification		following: or of Mining Engineering issued by an Australian sity, or
	Manag only if Certific separa Under	15 - Diploma of Underground Metalliferous Mining gement issued by a registered training organisation, but you have completed the elective units prescribed for the cate IV qualification below in your qualification or tely (the superseded qualification RII50213 Diploma of ground Metalliferous Mining, or other equivalent eded qualification is acceptable), or
	Opera supers Metall equiva have c equiva	20 Certificate IV in Underground Metalliferous Mining tions issued by a registered training organisation (the eded equivalent qualification RII40315 Certificate IV in iferous Mining Operations (Underground), or other lent superseded qualification is acceptable). You must ompleted the following electives (or superseded lent) from the qualification or separately to satisfy the ements:
	•	RIIRIS402E - Carry out the risk management processes, and
		RIIUND401E - Apply and monitor the ventilation management plan, and
		RIIWHS403E - Apply the work health and safety management plan, and





PREREQUISITE	REQUIREMENT
	RIIBLA401E Manage blasting operations (required from 1 January 2019).
Practical experience (refer to appendix B for guidance)	A minimum of three years practical underground mine other than coal experience, including: a minimum two years being present: with I year 4 months at an extraction face during production or development works and during other mining activities (this must be included in the three years of experience required above) a minimum of six months experience in leading, supervising or co-ordinating workers involved in underground mining activities other than coal.
Identity verification	Refer to section 11 of the guide for certificate of competence.
Emergency preparedness qualification	RIIERR404D - Apply and monitor underground metalliferous mine emergency preparedness and response systems, issued by a registered training organisation (the superseded unit RIIERR404A Apply and monitor underground metalliferous mine emergency preparedness and response systems, or other equivalent superseded unit number is acceptable).

13.11.2. Oral examination details

The oral examination will relate to the implementation and management of safety management systems, ANTS (Associated Non-Technical Skills) and management of emergency events.



13.12. Quarry manager of mines other than underground mines or coal mines

13.12.1. Prerequisites

A Stage 1 – application for examination must be accompanied by evidence that you have the following:

PREREQUISITE	REQUIREMENT
Tertiary qualification	Any one of the following: Bachelor of Mining Engineering issued by an Australian university, or
	RII60120 Advanced Diploma of Metalliferous Mining issued by a registered training organisation (the superseded qualification RII60115 Advanced Diploma of Metalliferous Mining, is acceptable or superseded equivalent qualification), or
	RII50120 Diploma of Surface Operations Management issued by a registered training organisation (the superseded qualification RIIERR50115 Diploma of Surface Operations Management, is acceptable or superseded equivalent qualification), or
	 Bachelor of Science issued by an Australian university and a Graduate Diploma in Mining Engineering issued by an Australian university, or
	Bachelor of Mechanical Engineering issued by an Australian university and evidence of study in mining subjects related to rock mechanics/mine slope stability and blasting, or
	Bachelor of Civil Engineering issued by an Australian university and evidence of study in mining subjects related to rock mechanics/mine slope stability and blasting.
Practical experience (refer to appendix B for guidance)	A minimum of four years* practical mine (other than underground or coal) experience, including:





PREREQUISITE	REQUIREMENT
	a minimum two years being present:
	at an extraction face during production or development works or
	during other mining activities
	(this must be included in the four years of experience required above)
	a minimum one year in a supervisory role responsible for the control and management of mining operations other than underground or coal mines, with minimum 6 months in mining activities at the mine.
	* in the four years of experience, up to one year in any other class of mine may be included.
	Note: refer to the <i>Further specific guidance for certificates</i> section of Appendix B
Identity verification	Refer to section 11 of the guide for certificate of competence.
Emergency preparedness qualification	RIIERR601E Establish and maintain mine emergency preparedness and response systems, issued by a registered training organisation (the superseded units RIIERR601D and RIIERR601A Establish and maintain mine emergency preparedness and response systems, or other equivalent superseded unit number is acceptable).
Blasting experience	Blasting experience is no longer a pre-requisite. Applicants should refer to the Further specific guidance for certificates section of Appendix B

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13.12.2. Written examination details

The written examination consists of the following papers:

PAPER	METHOD OF EXAMINATION	DURATION OF PAPER
Paper A – Legislation knowledge	Closed book	1 hour
Paper B – Legislation knowledge and application	Closed book	2 hours

Paper A - Legislation knowledge

You will be required to demonstrate a working knowledge of the *Work Health and Safety Act 2011, Work Health and Safety (Mines and Petroleum Sites) Act 2013, Explosives Act 2003* and their supporting regulations, and the latest version of Australian Standard 2187 Explosives – Storage, Transport and Use, as they relate to the duties of a quarry manager.

Paper B – Legislation knowledge and application

You will be required to interpret and apply the applicable legislation with respect to practical situations that may occur at an above ground mine or quarry. You will be expected to have knowledge of safe working procedures and the causes and prevention of mine incidents.



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14. Appendix B – Experience pre-requisites explained

From 1 April 2021 for all exam closing dates for the 2021/22 financial year applicants must satisfy the new experience pre-requisites. The exception is candidates applying to resit examinations who have already been approved.

Appendix A sets out the requirements for each certificate of competence including extraction and supervisory experience, which are further explained below. This guidance will be applied by the Resources Regulator and examiners to determine whether an application satisfies those experience pre-requisites.

This appendix explains the requirements to indicate whether your experience may satisfy the pre-requisites.

The minimum amount of time specified for each type of experience can be satisfied by adding up the various periods of your employment either where you worked:

- continuously doing activities at a location or
- where you worked for part of the time or shorter periods at one or more locations.

14.1. Clarification of practical experience

Applicants should refer to the Resources Regulator statutory function position descriptions and competencies page for guidance on the type of activities that may qualify as 'practical mine experience'. The statutory function position descriptions describe the tasks an individual carries out to exercise the function. The competency framework identifies seven areas of competence required to exercise each statutory function and includes examples of the type of work activities that demonstrate the competency. While applicants cannot have exercised the statutory function, they can obtain practical mine experience for the competencies.

Further to this, applicants should refer to the <u>sample of practical experience</u> supplied in support of an application. This sample shows an example of an application that was rejected (including the reasons why the experience was not acceptable), and an example of how practical experience should be supplied in support of an application.

The breakdown of total practical experience pre-requisites for each certificate exam are as follows:





EXAM	TOTAL PRACTICAL EXPERIENCE YEARS FOR CLASS OF MINE SPECIFIED	OTHER CLASS OF MINE OR INDUSTRY EXPERIENCE ALLOWED (MAXIMUM)
Supervisors (deputies, open cut examiners, and underground supervisors)	3 years	Zero
Middle managers (undermanagers and quarry managers) Specialists (electrical engineers and mechanical engineers)	4 years	Undermanager – zero Quarry manager (1 year in any other class of mine). Mechanical and electrical engineer (2 years – 1 year in any other class of mine and 1 year working as the type of engineer in another industry).
High level managers (mining, electrical, and mechanical)	5 years	Mining engineering managers (up to 1 year in any other class of mine). Mechanical and electrical engineering managers (2 years - up to 1 year in any other class of mine and up to 1 year working as the type of engineer in another industry).

14.2. Extraction experience

All applications require extraction experience as a pre-requisite. This experience will enable a person to sufficiently obtain and maintain an understanding of hazards and risks from processes and the environment. They will know how they are controlled within the development, implementation and/or application of the safety management system, as relevant to the statutory function. By possessing the required experience applicants should be ready to undertake the examination process and potentially be assessed as competent. Refer to the section above on what is 'practical mine experience' which extraction forms part of.

The extraction experience requirements are summarised in the table below for each certificate with types explained.

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CERTIFICATES	EXTRACTION REQUIREMENTS AS PART OF PRACTICAL MINE EXPERIENCE
Mining managers and supervisors	At least the specified number of years being present: for a minimum period specified at an extraction face during production or development works, and during other mining activities.
Electrical engineering	At least the specified number of years involved in the installation, commissioning, maintenance and repair of electrical plant and installations; and within the specified number of years' experience, one year must involve electrical plant and installations: with a minimum period specified at an extraction face during production or development works, and during other mining activities.
Mechanical engineering	At least the specified number of years involved in the installation, commissioning, maintenance and repair of mechanical plant; and within the specified number of years' experience, one year must involve mechanical plant: of or a minimum period specified at an extraction face during production or development works, and during other mining activities.

14.2.1. Types

Extraction face during production or development: physically participating in work where material is being excavated to access or mine the mineral. Examples of experience that may be suitable to provide are:

- a) Where a continuous miner or longwall are operating
- b) Where a jumbo or production drill are operating
- c) Where explosives are being used to blast the material
- d) Where plant is being used to remove the overburden or the excavated material such as the open cut pit or at the stope
- e) Development of a tunnel/drive to access the mineral to be mined

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During other mining activities: this is all other experience that relates directly to the extraction face/mining activities but may not require you to be physically present. Examples that may be suitable are:

Works underground

- a) The installation, commissioning, inspection and maintenance of plant, installations and structures such as:
 - conveyors,
 - pumping
 - ventilation
 - water and air reticulation
 - sand fill/paste fill infrastructure and reticulation
 - workshops
 - materials handling and beneficiation plants (such as CHPP)
 - electrical reticulation or gas drainage systems
- b) The installation and inspection of ground support
- c) Construction, inspection and maintenance of roads and drainage systems

2. Surface works

- a) The installation, commissioning, inspection and maintenance of plant, installations and structures such as crushers, conveyors, pumping, workshops, materials handling and beneficiation plants (such as CHPP), electrical reticulation or gas drainage systems
- b) Construction, inspection and maintenance of roads and drainage systems

Other related activities

- a) Carrying out a risk assessment or developing principal hazard management plans/control plans related to the processes at the extraction face
- b) Developing plans or drawings for plant and workers to establish, implement or apply at the extraction face
- c) Co-ordinating and planning of production related activities

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14.2.2. Ratio of types to make up total years of extraction experience

The ratios of experience and lengths of period required for:

at the extraction face during production or development works

versus

during other mining activities

to make up the **minimum total years of extraction requirements** varies according to the relevance to the certificate type.

Note: Some of the underpinning concepts for applying ratios are drawn from the *Code of practice: Mechanical engineering* (supervision) and the *Guide: Maintenance of competence for practising certificates* (types of learning ratios for formal versus non-formal/informal).

Supervisor examinations

Of the required two years extraction experience, applicants for supervisor examinations (deputies, open cut examiners and underground mine supervisors) must have:

- **a minimum of 1 year and four months** (2/3 of 2 year minimum) being present at an extraction face during production or development works and
- the remaining required experience of 8 months, to make up the total 2 years may come from other mining activities.

Mining 'middle' managers

Of the required two years of extraction experience, middle managers (undermanager, quarry manager) must have:

- a minimum of 1 year (half of 2 years) being present at an extraction face during production or development works
- **the remaining required experience of 1 year** to make up the total 2 years may come from other mining activities.

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Electrical and mechanical engineers and managers

Of the required one year of extraction experience, they must have:

- a minimum of 6 months (half of 1 year) being present at an extraction face during production or development works
- **the remaining required experience of 6 months** to make up the total 1 year may come from other mining activities.

Mining engineering managers

Of the required three years extraction experience, applicants for mining engineering managers examinations (mining engineering managers for underground coal, coal mines other than underground and underground mines other than coal) must have:

- **a minimum of 1 year** (1/3 of 3 years) being present at an extraction face during production or development works
- the remaining required experience of 2 years to make up the total 3 years may come from other mining activities.

14.3. Supervisory experience

All applications require supervisory experience as a pre-requisite in appendix A. Refer to the guidance on what is 'practical mine experience' of which supervision forms part. Applicants should also refer to the 'Guide: Assessing associated non-technical skills (ANTS) competencies for certificates of competence' for how supervisory competencies are assessed in the examinations and what their experience should provide.

The supervisory experience requirements are summarised in the table below for each certificate type.

CERTIFICATES	SUPERVISORY REQUIREMENTS AS PART OF PRACTICAL MINE EXPERIENCE
Mining managers/ undermanagers	Minimum period specified in a supervisory role responsible for the control and management of mining operations at the class of mine specified, with a minimum period in mining activities at the mine.
Supervisors (deputy/OCE/UG mine supervisor)	Minimum period specified in leading, supervising or co-ordinating workers involved in mining activities at the class of mine specified.





Electrical	Minimum specified period in a supervisory role responsible for electrical plant and installations at the class of mine specified.
Mechanical	Minimum period specified in a supervisory role responsible for the control and management of mechanical plant at the class of mine specified.

Requirements for supervisors are more specific than other types of certificates to give certainty that a broader range of activities are acceptable.

For supervisory requirements, the meaning of mining activities is given in the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* section 7(1)(a) and summarised in the <u>Guide: Understanding the term 'mining operations'</u>:

'...activities carried out for the purpose of extracting minerals from the ground or exploring for minerals. Activities where the primary purpose of the activity is to inject a mineral into the ground or to return a mineral to the ground are also mining activities.'

Supervision of mining activities at the class of mine specified must include:

- at the extraction face and
- development or production works associated with the extraction face
- in support of the extraction activities eg. longwall moves, installation of mine services, ventilation, conveyor installations, pumping, materials handling and beneficiations (such as upgrading plant).

Refer to extraction experience guidance above for more relevant information and examples.

Acceptable supervisory experience for mining activities will **not** include activities in sections 7(1)(b) to 7(1)(e) of the WHS (Mines and Petroleum Sites) Act.

14.3.1. Types

The types of supervision that can satisfy total supervisory experience requirements are:

SUPERVISE	OVERSEE OR DIRECT SOME PART OF MINING OPERATIONS
Direct supervision	Verifying through direct observation that mining activities (or applicable plant and installations) at the class of mine and any contractors involved are applying the requirements of the safety management system.

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General supervision

Where the individual may not always be present or directly responsible for supervising the mining activities (or applicable plant and installations) at the class of mine but will monitor to ensure that the safety management system is implemented, applied and monitored, and provide advice to supervisors and workers.

The context of 'supervision' has been extended to include 'leadership' and 'coordination' which may include*:

- coordination of mining activities, where the candidate is organising, planning and scheduling work,
 and/or
- showing leadership within the work group, where the candidate demonstrates they enlist support from others in the work group in achieving a common task safely, and/or
- mentoring or coaching others to develop their skills either in a specific task (as a coach in a formal setting), or in an informal setting as a mentor in developing another's knowledge and skill in an overall sense including providing support.

*Note: for supervisor type functions, examination leadership and co-ordination are stated in the requirements with supervision as being accepted. For other certificate examinations leadership and co-ordination experience will be considered as acceptable as part of the required supervision experience details.

A person is not required to be appointed to a position at the class of mine that contains supervisor, coordinator or leader in the title in order for the experience to be able to be claimed. It is about whether the experience in any role qualifies according to the criteria. For example, a member of a crew may list tasks they carry out that qualify.

14.4. Further specific guidance for certificates

14.4.1. Electrical Engineering Manager for underground coal mines and Electrical Engineer for mines other than underground coal mines

The examination panel for this certificate of competence recommend that applicants obtain a broad range of experience at a mine to better prepare them to undertake the exams successfully. Applicants may seek out opportunities to gain experience in the tasks below that may qualify as satisfying the experience requirements in appendix A:



EXPER	IENCE GUIDANCE	TOTAL MINE	EXTRACTION	OTHER MINING ACTIVITIES	SUPERVISION
a)	supervising workers performing electrical related tasks	٧			٧
b)	contributing to, completing assigned actions for, and verified the effective implementation of actions for risk assessments associated with managing electrical risks or hazards at a mine (depends on what area of mine)	٧			
c)	facilitating or participating in a risk assessment associated with managing hazards	٧			٧
d)	supervising or being involved in the procurement, installation, commissioning, operation, maintenance and overhaul of plant and structures	٧			V
e)	involved in an incident investigation	٧			٧
f)	involved in determining the root cause of an incident, potentially involving a third party (such as an OEM, technical expert, or contractor)	٧			
g)	presenting the outcomes of an investigation or root cause analysis to	٧			

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the site manageme workforce	nt team and			
h) developing and imp maintenance strate plant or structure		٧		
 i) identifying plant or regularly in use in the and not experience candidate, to gain for understanding in or comprehensive med knowledge 	nat type of mine, d by the urther der to have a	٧		
j) involved in the revious requirements for elegans, and their a appointment to per your site	ectrical trades uthorisation or	٧		
k) managing a contrac work by an externa your site		٧		√

14.4.2. Mechanical Engineering Manager for underground coal mines, and Mechanical Engineer for mines other than underground coal mines

The examination panel for this certificate of competence recommend that applicants obtain a broad range of experience at mines to better prepare them to undertake the exams successfully. Applicants may seek out opportunities to gain experience in the tasks below that may qualify as satisfying the experience requirements in appendix A:



EXPER	IENCE GUIDANCE	TOTAL MINE	EXTRACTION	OTHER MINING ACTIVITIES	SUPERVISION
a)	supervising workers performing mechanically related tasks	٧			٧
b)	contributing to, completing assigned actions for, and verified the effective implementation of actions for risk assessments associated with managing mechanical hazards at a mine (depends on what area of mine)	٧			
c)	facilitating or participating in a risk assessment associated with managing hazards	٧			٧
d)	supervising the procurement, installation, commissioning, operation, maintenance and overhaul of plant and structures	٧			V
e)	involved in an incident investigation	٧			٧
f)	involved in determining the root cause of an incident, potentially involving a third party (such as an OEM, technical expert, or contractor)	٧			
g)	presenting the outcomes of an investigation or root cause analysis to the site management team and workforce	٧			



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h)	developing and implementing a maintenance strategy for mechanical plant or structure	٧		
i)	identifying plant or structures regularly in use in that type of mine, and not experienced by the candidate, to gain further understanding in order to have a comprehensive mechanical knowledge	V		
j)	involved in the review of competency requirements for mechanical trades persons, and their authorisation or appointment to perform work on your site	V		
k)	managing a contract for performing work by an external contractor on your site	٧		٧

14.4.3. Open cut examiner

The Resources Regulator and examination panel advise for satisfying the experience pre-requisites that applicants should seek and include details of:

Extraction: being part of a production team involved in activities such as:		
	Auxiliary support activities eg: pit dewatering, haul road maintenance	
	drilling and blasting operations	
	dumping and stockpiling operations	
	managing geotechnical, vehicle and equipment interactions and general surface mining hazards	
	managing vehicle roads and equipment operating areas	





- overburden and coal removal and haulage.
- Supervision: Where a person carries out supervisory work similar to that of an OCE at a surface coal mine, but does not hold a current practising certificate that authorises the exercise of a statutory function. For example, that referred to as a 'step up supervisor', production supervisor or working in leadership or co-ordination roles.

Applicants should have similar supervision experience to an Open Cut Examiner such as in the activities listed above for extraction. Their experience may have come from assisting the Open Cut Examiner or training to be become one eg. supervising hazards in activities.

14.4.4. Mining engineering manager underground mines other than coal

The examination panel for this certificate exams recommend that applicants obtain a broad range of experience at a mine to better prepare them to undertake the exams successfully. This experience includes blasting so as to be able to manage/supervise explosive hazards, including emergencies.

The previous experience requirements for Mining engineering manager have been retained below as guidance only on what specific experience an applicant may seek out and obtain as part of fulfilling the current experience requirements:

EXPERIENCE GUIDANCE	TOTAL MINE EXPERIENCE	EXTRACTION	OTHER MINING ACTIVITIES	SUPERVISION
 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, and 	٧	V		
b) nine months practical experience working in an underground metalliferous mine under the control of a certified mining engineering manager of underground mines other than coal mines, involved in the following mining operations:				

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	ssisting tradespersons (depends or what activities and where)	٧			
d	rilling	٧	٧		
b	round control, for example, olting, meshing, shotcreting, mbering, scaling.	٧	V		
■ n	nine filling	٧	٧		
	nine servicing, equipment, nstallations and drainage	٧		٧	
	re of mullock haulage and ransport	٧		٧	
	lant operation (depends for what ctivities and where)	٧			
	oadway and track preparation, ervicing and maintenance	٧		٧	
	haft, passes and chute inspection nd repairs	٧		٧	
cor	hteen months practical experience issisting of two or more of the owing mining operations:				
(1	bove ground metalliferous mining imited up to 1 year in total to laim)	٧			

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coal mining (limited up to 1 year in total to claim)	٧			
environmental evaluations				
mining investigations surveying	٧	٧		
mine planning	٧			
mine rescue	٧			٧
mine ventilation	٧		٧	
quality control and sampling				
rock mechanics	٧		٧	
supervision	٧			
training	٧			٧
tunnelling	٧	٧		
 d) six months practical experience involved in mining operations as follows: 				
engineering	٧			
mine geology	٧			
rehabilitation studies.	٧			

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14.4.5. Underground mine supervisor of underground mines other than coal mines

The examination panel recommend for satisfying the experience pre-requisites that applicants should seek to have and include details of the following work at the extraction face during production or development:

- assisting tradespersons
- blasting operations ie: charging and blasting of holes
- drilling
- ground control, for example, bolting, meshing, shotcreting, timbering, scaling
- mine filling
- mine servicing, equipment, installations and drainage
- mine ventilation monitoring
- ore or mullock haulage and transport
- plant operation
- roadway and track preparation, servicing and maintenance
- shaft, passes and chute inspection and repairs

14.4.6. Quarry manager of mines other than underground mines or coal mines

The examination panel for this certificate exams recommend that applicants obtain a broad range of experience at a quarry to better prepare them to undertake the exams successfully. This experience includes blasting so as to be able to manage/supervise explosive hazards, including emergencies.

The previous experience requirements for Quarry Manager have been retained below as **guidance only** on what specific experience an applicant may seek out and obtain as part of fulfilling the current experience requirements:

EXPERIENCE GUIDANCE	TOTAL MINE	EXTRACTION	OTHER MINING ACTIVITIES	SUPERVISION
 a) three months work involved in the handling and use of explosives (depending on where). 	٧	٧		
 b) nine months practical experience working in an above ground mine or quarry under the control of a certified 				



EXPERIENCE GUIDANCE	TOTAL MINE	EXTRACTION	OTHER MINING ACTIVITIES	SUPERVISION
quarry manager involved in any of the following mining operations:				
drainage	٧		٧	
drilling	٧	٧		
equipment maintenance	٧		٧	
open cut or quarry crushing and screening	٧	٧		
overburden removal	٧	٧		
plant operation (depends on where and for what task)	٧	٧	٧	
road formation	٧		٧	
site rehabilitation	٧			
stockpiling	٧		٧	
 eighteen months practical experience involved in two or more of the following mining operations: 				
coal mining (limited to a total of one year)	٧			



EXPER	IENCE GUIDANCE	TOTAL MINE	EXTRACTION	OTHER MINING ACTIVITIES	SUPERVISION
•	environmental evaluations				
•	equipment evaluation	٧			
	quality control and sampling				
•	slope stability investigations (depends on where and what task)	٧			
•	supervision and safety	٧			٧
•	surveying (depends on where and what task)	٧	٧	٧	
•	training	٧			٧
•	tunnelling (limited to a total of 1 year)	٧			
•	underground metalliferous mining (limited to a total of 1 year).	٧			
d)	six months practical experience involved in two or more of the following mining operations:				
•	asphalt or concrete products				



EXPERIENCE GUIDANCE	TOTAL MINE	EXTRACTION	OTHER MINING ACTIVITIES	SUPERVISION
mining engineering	٧			
geology	٧			
mine design	٧			
rehabilitation studies.	٧			