



**NSW
Resources
Regulator**

DISCUSSION PAPER

PROPOSED CHANGES TO EXPERIENCE REQUIREMENTS FOR STATUTORY FUNCTION CERTIFICATES OF COMPETENCE

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Foreword

The NSW Resources Regulator is seeking comment from stakeholders on the Mining and Petroleum Competence Board's (the Board) proposal to increase experience requirements. This is for people applying for a certificate of competence for statutory functions at a mine or petroleum site required under the Work Health and Safety Mines and Petroleum Sites Regulation 2014 (the Regulation).

The Board is a statutory board established under the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* and the regulation responsible for advising the Minister and the NSW Resources Regulator on the:

- setting of competence standards
- standards for assessing competence, and
- requirements for the maintenance of competence.

for exercising functions at a mine or petroleum site that impact on the health and safety of any person.

The Board's proposed changes to experience requirements are in response to its review of feedback from examination panel members on the unpreparedness and lack of experience of many candidates under the current assessment requirements.

The Board is proposing to implement the changes in 2020.

Before implementing the proposed changes, the NSW Resources Regulator is seeking feedback from interested parties.

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The NSW Resources Regulator is proposing experience changes to safety critical roles

The Mining and Petroleum Competence Board has recommended to the NSW Resources Regulator that changes to the experience requirements for statutory function certificates of competence be adopted. These statutory functions are safety critical roles, required to be carried out by competent people. The changes relate to the length of nature of experience proposed to be required from 2020.

Feedback to the Board from examination panels indicated that many applicants were assessed as 'not yet competent' as they lacked the competencies to perform the function. Competence is the combination of skills, knowledge and experience. The qualifications required by the Board provide people with the knowledge, whereas the experience requirement enables people to develop their skills in applying their knowledge to a level where they can competently carry out the safety critical role.

Changes in experience are proposed to the following safety critical roles

Under the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014, 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. This may require having a practicing certificate, which in turn may require having a certificate of competence. This discussion paper sets out proposed changes in experience required 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

Have your say to the NSW Resources Regulator

The NSW Resources Regulator is seeking written submissions about this discussion paper.

You can make an individual submission or contribute to a joint submission through your employer, union, professional association, work health and safety group or committee or another forum.

You are invited to respond to some or all the questions below:

1. Are the proposed changes to experience requirements adequate?
2. Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?
3. Are the recommended experience activities appropriate, specifically, being present at extraction?

Please provide your submission to rr.feedback@planning.nsw.gov.au by 31 July 2019.

Submissions on this discussion paper will be considered by the NSW Resources Regulator and the Board when determining the experience requirements for certificates of competence. Submissions or summaries may be published on the NSW Resources Regulator website.

Please advise us if you do not want your submission to be published or if you wish to keep parts of your submission private, such as your name and contact details.

Summary of proposed experience requirements

The table below summarises the proposed certificate of competence experience requirements from 2020. The proposal includes increasing the length of experience for some functions, including supervision and working at the face.

STATUTORY FUNCTION	PROPOSED EXPERIENCE REQUIREMENTS
Underground coal	
Deputy	A minimum of three years practical underground coal mine experience, including at least two years of being present at an extraction face during production to support mining operations and openings (this must be included in the three years of experience above), and a minimum six months experience in supervising and/or co-ordinating and/or leading workers involved in underground coal mining activities.
Undermanager	A minimum of four years practical underground coal mine experience, including at least two years of being present at an extraction face to support mining operations and openings, and a minimum one year in a supervisory role responsible for the control and management of underground coal mining activities.
Manager mining engineering	A minimum of five years practical underground coal mine experience, including at least three years being present at an extraction face to support mining operations and openings, and a minimum two years in a supervisory role responsible for the control and management of underground coal mining activities. May include up to one year in any other class of mine.
Electrical engineering manager	A minimum of five years practical underground coal mine experience, including at least two years involved in the installation, commissioning, maintenance and repair of electrical plant and installations (within that two years' experience above, one year must involve electrical plant and installations at an extraction face (this must be included in the five years of experience above), and a minimum two years in a supervisory role responsible for electrical plant and installations underground. May include up to one year in any other class and one year working as an electrical engineer in another industry.

<p>Mechanical engineering manager</p>	<p>A minimum of five years practical underground coal mine experience, including at least 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 at an extraction face and a minimum two years in a supervisory role responsible for the control and management of mechanical plant underground. May include up to one year in any other class and one year working as a mechanical engineer.</p>
<p>Open cut coal</p>	
<p>Open cut examiner</p>	<p>A minimum of three years practical coal mine (surface) experience, including at least two years of being present at an extraction face during production to support mining operations and openings (this must be included in the experience required above), and a minimum six months experience in leading, supervising or co-ordinating workers involved in mining activities.</p>
<p>Manager mining engineering</p>	<p>A minimum of five years practical coal mine (surface) experience, including at least three years being present at an extraction face to support mining operations and openings at a surface coal mine (this must be included in the experience required above), and a minimum two years in a supervisory role responsible for the control and management of surface coal mining activities. May include up to one year working in any other class of mine.</p>
<p>Electrical engineer</p>	<p>A minimum of four years practical coal mine other than underground experience, including at least 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 at an extraction face at a surface coal mine, and a minimum one year in a supervisory role responsible for electrical plant and installations at a coal mine other than underground. May include up to one year in any other class and one year working as an electrical engineer in another industry.</p>

Mechanical engineer	A minimum four years practical coal mine other than underground experience, including with at least 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 at an extraction face at a coal mine (other than underground), and a minimum one year in a supervisory role responsible for the control and management of mechanical plant at a coal mine other than underground. May include up to one year in any other class and one year working as a mechanical engineer.
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Underground mines other than coal

Underground supervisor	A minimum of three years' experience in underground mines (at least two years of being present at an extraction face during production to support mining operations and openings at an underground mine, six months supervising or coordinating workers involved in mining activity).
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Manager mining engineering	A minimum of five years practical underground mine experience (other than coal), including at least three years being present at an extraction face to support mining operations and openings (this must be included in the five years of experience above), and a minimum two years in a supervisory role responsible for the control and management of underground mining activities (other than coal). May include up to one year in any other class of mine.
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Mines other than underground or coal mines

Quarry manager	A minimum of four years practical mine (other than underground or coal) experience, including at least two years being present at an extraction face to support mining operations and openings (this must be included in the experience required above), and minimum one year in a supervisory role responsible for the control and management of surface mining activities. May include up to one year in any other class of mine.
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All roles will require supervision experience

The meaning of supervision and its application for what is suitable practical experience for all certificates of competence is set out below. It is proposed that this information will be provided as guidance for introducing the changes and applied in determining whether the experience of an applicant is acceptable. Some of the underpinning concepts are drawn from the *Code of practice: Mechanical engineering* (supervision) and the *Guide: Maintenance of competence for practising certificates* (types of learning ratios):

SUPERVISE	OVERSEE OR DIRECT SOME PART OF MINING OPERATIONS
Direct supervision	Verifying through direct observation that mining operations and any contractors involved are applying the requirement of the safety management system.
General supervision	Where the individual may not always be present or directly responsible for supervising the activities 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’. Experience requirements are required to have a certain amount of experience in the supervision of mining operations 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: This experience will need to be documented and signed off in a logbook by a supervising manager at the mine.

All roles will require extraction experience

All roles require experience being present at the extraction face during production (i.e. when extraction of material is taking place):

- **Mining:** at least the specified number of years being present at an extraction face during production to support mining operations and openings
- **Electrical and mechanical:** 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 at an extraction face during production at the class of mine specified.

The concept of supervision set out above and an appropriate mix of direct and general presence at the extraction face is dependent on the role.

- **Front line supervisor (deputy, OCE and underground mine supervisor):** carry out tasks predominately exercised at the extraction face or nearby mining activities. Applicants should have obtained predominately direct experience. The ratio of direct to general presence should be minimum 2/3: maximum 1/3
- **Manager and engineer:** involves tasks that are not required to be predominately carried out at the extraction face (general). General tasks and direct tasks will all still require a person to be present at the extraction face at times to carry them out fully. These tasks will be interconnected with those for supervision and include those for other parts of the statutory function such as develop, review and monitor. The ratio of direct to general presence should be minimum 1/3: maximum 2/3.

The experience at the extraction face 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.

Proposed requirements compared to current requirements

Table 2 below summarises the ‘current’ and ‘proposed’ experience requirements for each certificate. The Board has agreed the proposed amendments to experience requirements.

Note: There may be exceptions to the agreement that experience prerequisite must be at the same class of mine (column 6) of Table 2. Column 6 proposes the exceptions and Table 3 provides the rationale.

Table 2: Summary of ‘current’ and ‘proposed’ experience requirements for each certificate (in years, unless otherwise stated)

CERTIFICATE	1. MINE CLASS		2. PRESENT AT EXTRACTION		3. INVOLVED IN SPECIFIC PLANT PHASES		4. SUPERVISION	5. EXTRACTING MINE	6. WORKING AT OTHER MINES	
	Current	Proposed	Current	Proposed	Current	Proposed	Proposed	Current	Current	Proposed
Underground coal mines										
Mining engineering manager	3	5	1	3	NA	NA	2	2	1	1 year any other class
Undermanager	3	4	1	2	NA	NA	1	2	1	0
Deputy	3	3	1	2	NA	NA	6 mths	2	1	0

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Discussion paper

Electrical engineering manager	1	5	NA	1	1	2	2	0	6 mths	1 year in any other class and 1 year working as an electrical engineer
Mechanical engineering manager	1	5	NA	1	1	2	1	0	6 mths	1 year in any other class and 1 year working as a mechanical engineer
Coal mines other than underground mines										
Mining engineering manager	1	4	NA	2	NA	NA	2	0	1	1 year any other class
Open cut examiner	3	3	1	1	NA	NA	6 mths	0	2 years 9 mths	0
Electrical engineer	6 mths	4	NA	2	6 mths	2	1	0	3 mths	1 year in any other class and 1 year working as an electrical engineer

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Underground mines other than coal mines										
Mining engineering manager	3	5	3 mths	3	NA	NA	2	0	3 mths	1 year any other class
Underground mine supervisor	3	3	1	1	NA	NA	6 mths	2	1	0
Mines other than underground/coal										
Quarry manager	3	4	NA	2	NA	NA	2	0	9 mths	1 year any other class

Table 3 – Rationale for allowing experience from other classes of mine

CERTIFICATE	6. WORKING AT OTHER MINES		
	Current	Proposed	Rationale
Underground coal			
Mining engineering manager	1	1 year in any other class of mine	This PC can enable the holder to conduct statutory functions in other classes of mines. With the extension from three to five years' experience it is appropriate to allow experience from any other class of mine.
Undermanager	1	0	The PC does not enable the holder to carry out functions in other classes of mines.
Deputy	1	0	The PC does not enable the holder to carry out functions in other classes of mines.
Electrical engineering manager	6 months	One year in any other class and one year working as an electrical engineer	With the extension from one to five years' experience it is appropriate to allow one-year experience from another class of mine (the PC enables the holder to carry out functions in other classes of mine) and one-year experience as an electrical engineer from another industry.

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Mechanical engineering manager	6 months	One year in any other class and one year working as a mechanical engineer	With the extension from one to five years' experience, it is appropriate to allow one-year experience from another class of mine (the PC enables the holder to carry out functions in other classes of mine) and one-year experience as a mechanical engineer from another industry.
Coal mines other than underground mines			
Mining engineering manager	1	One year any other class of mine	The proposed increase one to four years and the PC holder is enabled to carry out functions in other classes of mine
Open cut examiner	2 years 9 months	0	The PC does not enable the holder to carry out functions in other classes of mines.
Electrical engineer	3 months	One year in any other class and one year working as an electrical engineer in another industry	Proposed change from six months to four years is significant and experience from other classes of mine or industry is directly relevant to the function.
Mechanical engineer	3 months	One year in any other class and one year working as a mechanical engineer in another industry	Proposed change from six months to four years is significant and experience from other classes of mine or industry is directly relevant to the function.

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Underground Metex			
Mining Engineering Manager	3 months	One year any other class of mine	Proposed increase three to five years as the PC enables the holder to carry functions in other classes of mine.
Underground Mine Supervisor	1	0	The PC does not enable the holder to carry out functions in other classes of mines.
Open cut Metex			
Quarry Manager	9 months	One year any other class	Proposed increase of one year enables experience in other classes of mine to be relevant

Proposed areas of practice to gain experience

Table 4 – Specific changes regarding practical experience pre-requisites

UNDERGROUND COAL MINE - DEPUTY		
Current requirement	Proposed changes	Justification
<p>A minimum of three years of experience working in or about an underground mine as follows:</p> <ul style="list-style-type: none"> • a minimum of two years working in or about an underground coal mine concerned with the extraction of coal, and • at least one year of working in or about (i.e. being present during) underground coal production and/or the support of openings (this may be included in the two years of experience above), and • up to one year working in or about an underground mine other than a coal mine or hard rock tunnelling operation may be counted towards the three years of experience. 	<p>A minimum of three years practical underground coal mine experience, including:</p> <ul style="list-style-type: none"> • at least two years of being present at an extraction face during production to support mining operations and openings (this must be included in the three years of experience above), and • minimum six months experience in supervising and/or co-ordinating and/or leading worker involved in underground coal mining activities 	<ul style="list-style-type: none"> • fits with progression of requirements with undermanager and mining engineering manager, instead of all being three years • despite deputy being an 'entry' level function, some experience in leading, supervising or co-ordinating worker is necessary to competently carry out the role from commencement for ANTS, which is examined. Industry will need look at how it can provide opportunities for workers in particular operators as trades may have opportunities already

UNDERGROUND COAL MINE – UNDERMANAGER		
Current requirement	Proposed changes	Justification
<p>A minimum of three years of experience working in or about an underground mine as follows:</p> <ul style="list-style-type: none"> • a minimum of two years working in or about an underground coal mine concerned with the extraction of coal, and • at least one year of working in or about (i.e. being present during) underground coal production and/or the support of openings (this may be included in the two years of experience above), and • up to one year working in or about an underground mine other than a coal mine or hard rock tunnelling operation may be counted towards the three years of experience. 	<p>A minimum of four years practical underground coal mine experience, including:</p> <ul style="list-style-type: none"> • at least two years being present at an extraction face to support mining operations and openings, and • minimum one year in a supervisory role responsible for the control and management of coal underground mining activities. 	<ul style="list-style-type: none"> • fits with progression of requirements from deputy to mining engineering manager, instead of all being three years <p>Potential issues:</p> <ul style="list-style-type: none"> • increasing from three to four years total experience required

UNDERGROUND COAL MINE – MINING ENGINEERING MANAGER

Current requirement	Proposed changes	Justification
<p>A minimum of three years of experience working in or about a mine as follows:</p> <ul style="list-style-type: none"> • a minimum of two years working in or about an underground coal mine concerned with the extraction of coal, • at least one year of working in or about (i.e. being present during) production mining operations and/or the support of openings (this may be included in the two years of experience above), and • up to one year working in or about a mine other than an underground coal mine may be counted towards the three years of experience. 	<p>A minimum of five years practical underground coal mine experience, including:</p> <ul style="list-style-type: none"> • at least three years being present at an extraction face to support mining operations and openings, and • minimum two years in a supervisory role responsible for the control and management of coal underground mining activities. • May include up to one year in any other class of mine 	<ul style="list-style-type: none"> • fits with progression of requirements from deputy to mining engineering manager, instead of all being three years <p>Potential issues:</p> <ul style="list-style-type: none"> • increasing from three to five years total experience required

COAL MINES OTHER THAN UNDERGROUND COAL MINES – MINING ENGINEERING MANAGER

Current requirement	Proposed changes	Justification
<p>A minimum of three years of experience working in or about a surface mine operation as follows:</p> <ul style="list-style-type: none"> • a minimum of one year working in or about a surface coal mine, and • up to one year working in or about an underground coal mine may be counted towards the three years of experience. 	<p>A minimum of five years practical coal mine (surface) experience, including:</p> <ul style="list-style-type: none"> • at least three years being present at an extraction face to support mining operations and openings at a surface coal mine (this must be included in the experience required above), and • minimum two years in a supervisory role responsible for the control and management of surface coal mining activities. • may include up to one year working in any other class of mine. 	<ul style="list-style-type: none"> • fits with progression of requirements from OCE to mining engineering manager, instead of both being three years <p>Potential issues:</p> <ul style="list-style-type: none"> • experience required only from surface coal mine whereas previously other types of mines experience were recognised.

COAL MINES OTHER THAN UNDERGROUND COAL MINES – OPEN CUT EXAMINER

Current requirement	Proposed changes	Justification
<p>A minimum number of years of experience working in or about a surface mine operation as follows:</p> <ul style="list-style-type: none"> • applicants with a Bachelor of Mining Engineering must have one year of practical experience working in surface coal mining production operations. • all other applicants must have three years of practical experience in surface mining operations of which a minimum of one year must have been working in production areas. Within that minimum one year, at least three months must have been working in or about surface coal mining production operations. 	<ul style="list-style-type: none"> • A minimum of three years practical coal mine (surface) experience, including: • at least two years of being present at an extraction face during production to support mining operations and openings (this must be included in the experience required above), and • minimum six months experience in leading, supervising or co-ordinating workers involved in mining activities 	<ul style="list-style-type: none"> • fits with progression of requirements from OCE to mining engineering manager, instead of being all three • removes individuals with Bachelor degrees from being able to apply with one year's experience as this is the only certificate that allows this and doubt over whether one year is sufficient • despite OCE being an 'entry' level function, some experience in supervising or co-ordinating workers is necessary to competently carry out the role from commencement for ANTS, which is examined • not expected to be a significant hurdle, given amount of supervision of crews or leading hand roles at open cuts.

UNDERGROUND MINES OTHER THAN COAL – MINING ENGINEERING MANAGER

Current requirement	Proposed changes	Justification
<p>A minimum of three years of experience as follows:</p> <p>(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</p> <p>(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 works:</p> <p>- assisting tradespersons; drilling; ground control (for example, bolting, meshing shotcreting, timbering, scaling); mine filling; mine servicing, equipment, installations and drainage; ore of mullock haulage and transport; plant operation; roadway and track</p>	<p>A minimum of five years practical underground mine experience (other than coal), including:</p> <ul style="list-style-type: none"> • at least three years being present at an extraction face to support mining operations and openings (this must be included in the five years of experience above), and • minimum two years in a supervisory role responsible for the control and management of underground mining activities (other than coal). • May include up to one year in any other class of mine <p>Note: the specific details of the current pre-requisites in 2019 are proposed to be retained as guidance to support applicants to seek out and obtain appropriate</p>	<ul style="list-style-type: none"> • same as mining engineering manager coal underground but does allow for coal underground experience to be credited. • Current specific details required for experience to be moved into the guide to certificate pre-requisites as guidance recommending individuals plan to obtain it. <p>Potential issues:</p> <ul style="list-style-type: none"> • increasing from three to five years total experience • Surface mines certificates for coal and quarry do allow for experience from underground to be credited towards the total experience. Why not vice versa? • current specific requirements to be moved into guidance

<p>preparation, servicing and maintenance; shaft, passes and chute inspection and repairs</p> <p>(c) Eighteen months practical experience consisting of two or more of the following mining works:</p> <ul style="list-style-type: none">- 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>(d) Six months practical experience involved in mining works as follows:</p> <ul style="list-style-type: none">- Engineering; mine geology; metallurgy; rehabilitation studies.	<p>experience. Examiners may refer to it in instances where it appears the applicant does not have sufficient experience to satisfy the pre-requisites.</p>	
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UNDERGROUND MINES OTHER THAN COAL – UNDERGROUND SUPERVISOR

Current requirement	Proposed changes	Justification
<p>A minimum of three years' experience working in or about a mine as follows:</p> <ul style="list-style-type: none"> • a minimum of two years working in or about an underground mine working with the extraction of a mineral. Within those minimum two years, a least one year must have been working in or about underground production and/or the development of ground support and/or connected activities to mining operations undertaken underground, and • up to one year working in or about a mine other than an underground mine may be counted towards the three years' experience. 	<p>A minimum of three years practical underground mine (other than coal) experience, including:</p> <ul style="list-style-type: none"> • at least two years of being present at an extraction face during production to support mining operations and openings at an underground mine (this must be included in the three years of experience above), and • minimum of six months experience in leading, supervising or co-ordinating worker involved in mining activities 	<ul style="list-style-type: none"> • fits with progression of requirements to mining engineering manager • despite supervisor being an 'entry' level function, some experience in supervising or co-ordinating workers is necessary to competently carry out the role from commencement for ANTS, which is examined. • not expected to be a significant hurdle given supervisory opportunities ug.

MINES OTHER THAN UNDERGROUND OR COAL MINES – QUARRY MANAGER

Current requirement	Proposed changes	Justification
<p>A minimum of three years of experience as follows:</p> <ul style="list-style-type: none"> (a) Three months work involved in the handling and use of explosives. (b) Nine months practical experience working in an above ground mine or quarry under the control of a certified quarry manager involved in any of the following mining works: <ul style="list-style-type: none"> - Drainage; drilling; equipment maintenance; open cut or quarry production; overburden removal; plant operation; road formation; site rehabilitation; stockpiling (c) Eighteen months practical experience involved in two or more of the following mining works: <ul style="list-style-type: none"> - coal mining (limited to three months only) 	<p>A minimum of four years practical mine (other than underground or coal) experience, including:</p> <ul style="list-style-type: none"> • at least two years being present at an extraction face to support mining operations and openings (this must be included in the experience required above), and • minimum one year in a supervisory role responsible for the control and management of surface mining activities. • May include up to one year in any other class of mine <p>Note: the specific details of the current pre-requisites in 2019 are proposed to be retained as guidance to support applicants to seek out and obtain appropriate experience. Examiners may refer to it in instances where it appears the applicant does not have sufficient experience to satisfy the pre-requisites.</p>	<ul style="list-style-type: none"> • same as coal mines mining engineering manager • total of four years’ experience is consistent with only 90 hours MOC required for quarry manager, which is the same as the undermanager. • current specific details required for experience to be moved into the guide to certificate pre-requisites as guidance recommending individuals to plan to obtain it.

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<p>-environmental evaluations; equipment evaluation; quality control; sampling; slope stability investigations; supervision and safety; surveying; training; tunnelling (limited to three months only); underground metalliferous mining (limited to three months only).</p> <p>(d) Six months practical experience involved in two or more of the following mining works:</p> <ul style="list-style-type: none">- asphalt or concrete products; engineering; geology; mine design; rehabilitation studies.		
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UNDERGROUND COAL MINES – MECHANICAL ENGINEERING MANAGER

Current requirement	Proposed changes	Justification
<p>A minimum of one year of experience working in or about a coal mine as follows:</p> <ul style="list-style-type: none"> • within that one year of experience, you must have been involved in the installation, commissioning, maintenance and repair of mechanical plant at a coal mine, and • within that one year of experience, a minimum of six months must have been working in or about an underground coal mine. 	<p>Minimum five years practical underground coal mine experience, including:</p> <ul style="list-style-type: none"> • at least 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 at an extraction face • minimum two years in a supervisory role responsible for the control and management of mechanical plant underground. • May include up to one year in any other class and one year working as a mechanical engineer 	<ul style="list-style-type: none"> • consistent with mining engineering manager underground coal mine as a high-level manager total of hours for maintenance of competence • introduces pre-requisite for mechanical plant experience at the extraction face and supervision experience <p>Potential issue:</p> <ul style="list-style-type: none"> • increasing total experience from one to five years and only from an underground coal mine, whereas only six months required previously at any type of coal mine.

COAL MINES OTHER THAN UNDERGROUND MINES – MECHANICAL ENGINEER

Current requirement	Proposed changes	Justification
<p>A minimum of six months experience working in or about a surface coal mine as follows:</p> <ul style="list-style-type: none"> • within that six months of experience, you must have been involved in the installation, commissioning, maintenance and repair of mechanical plant at a coal mine. 	<p>Minimum four years practical coal mine other than underground experience, including:</p> <ul style="list-style-type: none"> • at least 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 at an extraction face at a coal mine (other than underground), and • minimum one year in a supervisory role responsible for the control and management of mechanical plant at a coal mine other than underground • May include up to one year in any other class and one year working as a mechanical engineer 	<ul style="list-style-type: none"> • consistent with mining engineering manager surface as a high-level manager total of hours for maintenance of competence (90 hours) • introduces pre-requisite for supervision experience (same as underground coal mine mining and electrical engineering manager) <p>Potential issues:</p> <ul style="list-style-type: none"> • increasing total experience from six months to four years and specific sub categories

UNDERGROUND COAL MINES – ELECTRICAL ENGINEERING MANAGER

Current requirement	Proposed changes	Justification
<p>A minimum of one year of experience working in or about a coal mine as follows:</p> <ul style="list-style-type: none"> • within that one year of experience, you must have been involved in the installation, commissioning, maintenance and repair of electrical plant and installations at a coal mine, and • a minimum of six months must have been working in or about an underground coal mine, and • up to three months working at a licensed workshop (formerly approved workshop) may be counted towards the one year of experience. 	<p>Minimum of five years practical underground coal mine experience, including:</p> <ul style="list-style-type: none"> • at least two years involved in the installation, commissioning, maintenance and repair of electrical plant and installations • within that two years' experience above, one year must involve electrical plant and installations at an extraction face (this must be included in the five years of experience above), and • minimum two years in a supervisory role responsible for electrical plant and installations underground • may include up to one year in any other class and one year working as an electrical engineer in another industry. 	<ul style="list-style-type: none"> • consistent with mining engineering manager underground coal mine as high-level manager total of hours for maintenance of competence • removed experience that can be claimed for working at a licensed workshop as three months not thought significant enough to retain <p>Potential issues:</p> <ul style="list-style-type: none"> • increasing total experience from one year to five years • previously required overall total experience to be at a coal mine only but now only from underground coal mine, which is consistent with mining and mechanical engineering certificates.

COAL MINES OTHER THAN UNDERGROUND MINES – ELECTRICAL ENGINEER

Current requirement	Proposed changes	Justification
<p>A minimum of one year of experience working in or about a surface coal mine as follows:</p> <ul style="list-style-type: none"> • within that one year of experience, you must have been involved in the installation, commissioning, maintenance and repair of electrical plant and installations at a coal mine, and • up to three months working at an organisation that installs, maintains, services, inspects, overhauls and/or repairs electrically powered mobile plant for use in surface mines, may be counted towards the one year of experience. 	<p>Minimum of four years practical coal mine other than underground experience, including:</p> <ul style="list-style-type: none"> • at least 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 at an extraction face at a surface coal mine, and • minimum one year in a supervisory role responsible for electrical plant and installations at a coal mine other than underground • May include up to one year in any other class and one year working as an electrical in another industry. 	<ul style="list-style-type: none"> • consistent with mining engineering manager surface coal mine as high-level manager total of hours for maintenance of competence (90 hours) • removed experience that can be claimed for working at an organisation involved in lifecycle for electrical plant and installations as three months not thought significant enough to retain <p>Potential issues:</p> <ul style="list-style-type: none"> • increasing total experience from six months to four years.