



**NSW
Resources
Regulator**

**PROPOSED CHANGES TO EXPERIENCE REQUIREMENTS FOR STATUTORY
FUNCTION CERTIFICATES OF COMPETENCE**

PUBLIC SUBMISSIONS

consultation period ending 31 July 2019



Introduction

The following stakeholder submissions were provided to the NSW Resource Regulator in response to the Mining and Petroleum Competence Board’s proposal to increase the 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.

Submissions have been published in full where consent has been given. Personal information has been redacted if requested.

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1. Institute of Quarrying Australia

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Postal address (if different)	PO Box 1779 Milton BC QLD AUSTRALIA 4064
Are you an individual representing an organisation	CEO
If you are representing an organisation, please name it	The Institute of Quarrying Australia (IQA)
<p>Privacy – please tick if appropriate</p> <p><input checked="" type="checkbox"/> I consent to my submission being published in full</p> <p><input type="checkbox"/> I consent to my submission being published excluding personal information</p> <p><input type="checkbox"/> I do not want my submission published on the NSW Resources Regulator website</p>	

DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?

Are the proposed changes to experience requirements adequate?

The regulator is proposing to increase the practical experience required by a Quarry Manager by 1 year and 2 years “present at extraction”.

The IQA proposes that the recommendation is adequate and would not support any further increase to the years / time experience required.

While the IQA supports any move to improve safety in the industry, this change is supported if grandfathering clauses are implemented to ensure quarry sites have adequate time to manage the transition of the workforce requiring the additional practical experience.

The IQA has no objection to 12 months (as opposed to 9 months) being recognised from other classes of mine.

Proposed areas of practice to gain experience:

- The increase from 3 to 4 years must have adequate grandfathering to allow sites prepare their workforces for the transition.
- It is unclear how the regulator proposes to assess experience “at the extraction face”. There must be clear and consistent guidelines and assessment of experience and this requires further definition. Experience should be recognised if a person is supervising in the quarry, but not working directly on a machine “at the extraction face”. If the experience is required at the “face” then this will be very difficult for workers to gain the required time as it would not be a “straight” 4 years.

<p>Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?</p>	<p>The IQA proposes that the recommendation is adequate and would not support any further increase to the time required for supervision. However, as stated above, there will need to be adequate consideration for how current staff are grandfathered and to ensure the quarry industry has time to plan and prepare for the increase in time.</p> <p>The other critical consideration is to ensure the regulator can recognise pathways in the surface extraction industry where staff have undertaken supervision. For example, a person transitioning from a geologist or a machine operator into a senior role. These roles will have experience “being present at an extraction face” in various supervisory capabilities.</p>
<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>As stated above, the term “being present at extraction” requires further definition. To be appropriate this must be considered as being present at the site. Supervision of a quarry is multi-faceted, and the experience should be taken as experience (time) at the whole site, and not just at the extraction face.</p>
<p>Do you have any comments of a general nature?</p>	<p>RII60215 Advanced Diploma of Extractive Industries Management is not listed in the Guide: Applying for examinations and statutory function certificates for 2019 as an acceptable qualification for Quarry Managers. This qualification should be accepted by the regulator.</p> <p>As a general point to note, competency requirements are different across the states. There should be a greater effort to align requirements.</p> <p>The information provided is not clear on how it is applied to managers managing multiple sites:</p> <ul style="list-style-type: none"> • Can this be done or does their need to be a practising person per site? • How are single person operations to be managed?

2. Individual submission

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	
If you are representing an organisation, please name it	
<p>Privacy – please tick if appropriate</p> <p><input type="checkbox"/> I consent to my submission being published in full</p> <p><input checked="" type="checkbox"/> I consent to my submission being published excluding personal information</p> <p><input type="checkbox"/> I do not want my submission published on the NSW Resources Regulator website</p>	
<p>DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?</p>	
Are the proposed changes to experience requirements adequate?	Yes – it is a good move to increase level of direct exposure to extraction activities (focussed on Underground METEX)
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	Yes
Are the recommended experience activities appropriate, specifically, being present at extraction?	Yes though the inclusion of “may” include work at other mines seems to water down the opportunity to give mining engineering managers a broad understanding of various options and methodologies to approach risk management. If the word “May” was removed from the details on page 8 under mining engineering manager for METEX it would be much more comprehensive.
Do you have any comments of a general nature?	

3. Glencore CSA Mine

Name	Chris Hamilton
Email	
Street address	Louth Road Cobar
Postal address (if different)	
Are you an individual representing an organisation	Yes
If you are representing an organisation, please name it	Glencore CSA Mine

Privacy – please tick if appropriate

- I consent to my submission being published in full
- I consent to my submission being published excluding personal information
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DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?

<p>Are the proposed changes to experience requirements adequate?</p>	<p>I believe that the extension to underground time to 3 years as excessive and as an industry we will not be able to support this. It is already becoming increasingly difficult to attract engineers to Mining and this will drive graduates to other states to get their mine managers ticket. We do not have the depth of engineers to support such a long program and the end result will be no engineers or 1 engineer every 3 years to get their time. This will be a negative outcome with a further strain on already thin engineers with practicing tickets, further eroding safety.</p> <p>I feel that this underground extension de-values technical skills and knowledge which can be as big a factor in the safe operation of a mine.</p> <p>We need to build “Leaders of our workforce” as the mine manager, and doing menial underground work for 3 years does not encourage this</p>
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<p>Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?</p>	<p>I agree with the addition of 6 months of supervisors experience, but believe this should specify as a crew leader or similar, with direct control over the workforce</p>
<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>It is unclear what the definition of “present at an extraction face to support mining operations and openings” means in a metalliferous context. We need to be creating leaders and our engineers need an appreciation of the risk and hazards in our workplace but do not need to be expert operators</p>
<p>Do you have any comments of a general nature?</p>	<p>The current feedback on the skills and knowledge of engineers who have sat the exam in the last 4 years is inaccurate for the metalliferous sector, as I have directly work with and managed most of the applicants.</p> <p>This current change does not increase safety at our workplace as it is not driving a leadership culture.</p>

4. Individual submission

(1 of 2 submissions)

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	
If you are representing an organisation, please name it	
<p>Privacy – please tick if appropriate</p> <p><input type="checkbox"/> I consent to my submission being published in full</p> <p><input checked="" type="checkbox"/> I consent to my submission being published excluding personal information</p> <p><input type="checkbox"/> I do not want my submission published on the NSW Resources Regulator website</p>	
<p>DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?</p>	
Are the proposed changes to experience requirements adequate?	Adequate for what? Changes are required, but what is proposed will not improve the situation.
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	<p>How does the proposed Supervisor experience required to obtain the Supervisor CoC, occur on a small site where there is no Leading Hand (supplementary Supervisor) position?</p> <p>There is no argument about the requirement for Supervisory experience but the proposal is impractical and would be detrimental and costly, especially to smaller operations.</p>

<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>The requirement for extraction face time should be mandatory, as it currently is, but the proposed new timeframes are impractical and would ultimately lead to less people qualifying for statutory roles....let alone passing the examination.</p>
<p>Do you have any comments of a general nature?</p>	<p>The proposed changes need to take into consideration all size operations from the small 6 man crews to the large scale operations that may have 40+ per crew.</p> <p>The proposed changes could be accommodated a lot easier at a large scale mine as opposed to the smaller operations.</p> <p>Smaller operations don't have the hierarchy structure or quantity of people that allows for adequate redundancies of Statutory positions to allow 365 day operation.</p> <p>Currently, if a backup (spare) Supervisor is on holidays and the Nightshift Supervisor calls in sick then the mine must be shut for 12hrs. This is a ridiculous, but very plausible situation for a small operation. What this causes is Supervisors not to take leave when sick or fatigued because their actions may shut the mine down. Not a satisfactory situation and certainly a known risk that could be solved by giving MEMs the authority, through legislation, to risk assess and deputise, based on experience, replacement MEMs or Supervisors for periods of up to 14 continuous days. Any period greater than this would require special application and approval by the Regulator.</p> <p>Asking Mining Engineers in the current employment market, to undertake 3 years Underground time to obtain their Supervisor's CoC prior to obtaining their MEM CoC, will only see the limited number of available mining engineers focus on working in other states where the requirements to obtain their "managers" qualification are more realistic.</p> <p>The current proposal would see a large vacuum of engineers move state to work.</p> <p>There needs to be far greater consultation with industry</p>

	<p>about the proposed changes and alternative solutions. The current proposal looks to be getting “rushed” through with minimal examination of its impact on industry or the measurable benefits it is aimed to provide in terms of “safety”.</p> <p>In summary, what you are aiming to achieve (better qualified and experienced people for statutory roles) is absolutely needed, however the proposal to achieve that aim is flawed!</p>
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(2 of 2 submissions)

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	
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<p>DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?</p>	
Are the proposed changes to experience requirements adequate?	My comments relate to the position of Underground Supervisor – Metex. The term “extraction face” does not translate well to UG Metex, however if it is to be taken that 2 years of mining and direct mining support work including drilling, charging, loading and primary service work (vent, pumping, providing services at the mining face) then 2 years is appropriate as a minimum.
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	The inclusion of supervisory experience as a prerequisite to obtaining a CoC is a laudable suggestion and I support the concept, however the changes to legislation make this virtually impossible for many UG Metex mines. Unlike coal, the management structure in the UG environment is generally very flat, often having no ‘supervisory’ opportunities between the operator and statutory supervisor. In some very small operations the UG Supervisor also forms part of the mining crew. In Metex, the most experienced operators – i.e. those most suitable to progression to supervisor (drillers, bogger operators etc) generally work autonomously and

	<p>have no one to supervise. Prior to recent legislation changes supervisory experience was gained through being nominated as a relief supervisor and supervising in short blocks, under the scrutiny of the mine manager. This allowed progressive development of skills and assessment by management. This valuable and effective supervisor development process is no longer possible because the candidate doesn't have a CoC and can't get a CoC because he or she doesn't have a CoC. If the Board is not prepared to provide a practicable mechanism to allow candidates to gain supervisory experience prior to applying for a CoC then the supervisory prerequisite should be removed. A much more appropriate approach is to develop a protocol under which competent people that are yet to get a CoC can be used in supervisory roles for defined periods. There could be various prerequisites for this (experience, designated training etc.). It should be remembered that the MEM retains accountability for the safe operation of the mine and is therefore obliged to ensure that any person has the capabilities to appropriately carry out the role. This system worked in metex for many decades without significant issue – it is only the inflexibility of the current requirements that preclude it.</p>
<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>As per first question.</p>
<p>Do you have any comments of a general nature?</p>	<p>There appears little recognition of the fundamental differences between UG coal and UG metex operational realities in the proposed changes, many of which are impractical and unviable in UG metex. A process of appropriate stakeholder consultation with a broad range of operations has not been undertaken and the decision making process expected of industry - i.e. evidence based and risk assessed - does not appear evident in many changes proposed by the Regulator.</p>

5. Tony McPaul

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Email	
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Postal address (if different)	57 Adelaide Street Blayney NSW
Are you an individual representing an organisation	Individual
If you are representing an organisation, please name it	
<p>Privacy – please tick if appropriate</p> <p><input checked="" type="checkbox"/> I consent to my submission being published in full</p> <p><input type="checkbox"/> I consent to my submission being published excluding personal information</p> <p><input type="checkbox"/> I do not want my submission published on the NSW Resources Regulator website</p>	
<p>DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?</p>	
Are the proposed changes to experience requirements adequate?	The proposed changes to the Manager Mining Engineering Certificate of Competence is in my view is inappropriate and Flawed.
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	The inclusion of supervisor experience is appropriate however the length of time proposed to achieve it is totally inappropriate, I believe three to six months is more appropriate.
Are the recommended experience activities appropriate, specifically, being present at extraction?	The requirement to gain experience at the extraction face, as it is now should remain mandatory. The increased time frames are impractical and do not guarantee a better outcome.
Do you have any comments of a general nature?	I agree with the need to ensure we have well prepared and appropriately experienced candidates, I strongly disagree that

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	<p>increasing that increase and mandating a longer time frame at the extraction face will achieve this. Some of the skills essential for success in this role are emergency preparedness, knowledge of legislation, safety management and controls etc these are not skills and experience gained working at the extraction face.</p>
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6. Individual submission

(1 of 4 submissions)

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	No
If you are representing an organisation, please name it	

Privacy – please tick if appropriate

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DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?

Are the proposed changes to experience requirements adequate?	<p>My comments relate to the position of Open Cut Examiner.</p> <p>This question should read “Do the proposed changes to experience requirements satisfy the goal of improving candidate quality”</p> <p>Unless a clear relationship between the lack of ‘hands-on’ experience and candidate/incumbent performance can be established there is no justification for a change from the current requirements for 12 months practical experience working in surface coal mining production operations. Additional practical ‘production experience’ time is of far less value than learning the technical aspects required to provide a safe working environment (pit design, geotechnical evaluation, blast design etc.).</p>
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<p>Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?</p>	<p>Inclusion of supervisory time may be quite problematic depending upon the definition of supervision in this context as many surface operations use contractors for mining. It is practicable to second someone to a contractor’s work crew for the required practical experience however there is no opportunity to second then into an ‘operational’ supervisory position with the same. However, if supervision includes ‘client supervision’ of contracted works or internal supervision of client work teams then the supervisory requirement may not be an issue.</p>
<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>As per first question. Fully agree that practical experience should be a prerequisite. There does not however appear to be a valid argument to change the current requirements. Proposed changes are more likely to reduce candidate quality rather than achieve the intended goal of increasing it.</p>
<p>Do you have any comments of a general nature?</p>	

(2 of 4 submissions)

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	No
If you are representing an organisation, please name it	
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<p>DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?</p>	
Are the proposed changes to experience requirements adequate?	My comments relate to the position of Underground Supervisor – Metex. The term “extraction face” does not translate well to UG Metex, however if it is to be taken that 2 years of mining and direct mining support work including drilling, charging, loading and primary service work (vent, pumping, providing services at the mining face) then 2 years is appropriate as a minimum.

Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?

The inclusion of supervisory experience as a prerequisite to obtaining a CoC is a laudable suggestion and I support the concept, however the changes to legislation make this virtually impossible for many UG Metex mines. Unlike coal, the management structure in the UG environment is generally very flat, often having no 'supervisory' opportunities between the operator and statutory supervisor. In some very small operations the UG Supervisor also forms part of the mining crew. In Metex, the most experienced operators – i.e. those most suitable to progression to supervisor (drillers, bogger operators etc) generally work autonomously and have no one to supervise. Prior to recent legislation changes supervisory experience was gained through being nominated as a relief supervisor and supervising in short blocks, under the scrutiny of the mine manager. This allowed progressive development of skills and assessment by management. This valuable and effective supervisor development process is no longer possible because the candidate doesn't have a CoC and can't get a CoC because he or she doesn't have a CoC. If the Board is not prepared to provide a practicable mechanism to allow candidates to gain supervisory experience prior to applying for a CoC then the supervisory prerequisite should be removed. A much more appropriate approach is to develop a protocol under which competent people that are yet to get a CoC can be used in supervisory roles for defined periods. There could be various prerequisites for this (experience, designated training etc.). It should be remembered that the MEM retains accountability for the safe operation of the mine and is therefore obliged to ensure that any person has the capabilities to appropriately carry out the role. This system worked in metex for many decades without significant issue – it is only the inflexibility of the current requirements that preclude it.

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Proposed changes to experience requirements for statutory function certificates of competence

<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>As per first question.</p>
<p>Do you have any comments of a general nature?</p>	<p>There appears little recognition of the fundamental differences between UG coal and UG metex operational realities in the proposed changes, many of which are impractical and unviable in UG metex. A process of appropriate stakeholder consultation with a broad range of operations has not been undertaken and the decision making process expected of industry - i.e. evidence based and risk assessed - does not appear evident in many changes proposed by the Regulator.</p>

(3 of 4 submissions)

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	No
If you are representing an organisation, please name it	

Privacy – please tick if appropriate

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DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?

Are the proposed changes to experience requirements adequate?	<p>My comments relate to the position of Quarry Manager Other Than Coal.</p> <p>This question should read “Are the proposed changes to experience requirements appropriate”</p> <p>The current requirements for 3 months handling explosives and 9 months practical experience are adequate and appropriate and do not require changing. Additional practical ‘production experience’ time is of far less value than learning the technical aspects required to provide a safe working environment (pit design, geotechnical evaluation, blast design etc.).</p>
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<p>Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?</p>	<p>Inclusion of supervisory time may be quite problematic depending upon the definition of supervision in this context as many surface operations use contractors for mining. It is practicable to second someone to a contractor’s work crew for the required practical experience however there is no opportunity to second then into an ‘operational’ supervisory position with the same. However, if supervision includes ‘client supervision’ of contracted works or internal supervision of client work teams then the supervisory requirement may not be an issue.</p>
<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>As per first question. Fully agree that practical experience should be a prerequisite. There does not however appear to be a valid argument to change the current requirements. Proposed changes are more likely to reduce candidate quality rather than achieve the intended goal of increasing it.</p>
<p>Do you have any comments of a general nature?</p>	

(4 of 4 submissions)

Name	
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	
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<p>Privacy – please tick if appropriate</p> <p><input type="checkbox"/> I consent to my submission being published in full</p> <p><input checked="" type="checkbox"/> I consent to my submission being published excluding personal information</p> <p><input type="checkbox"/> I do not want my submission published on the NSW Resources Regulator website</p>	
<p>DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?</p>	
Are the proposed changes to experience requirements adequate?	<i>Are proposed changes to experience requirement adequate?</i> – The question should read ‘are changes warranted and/or appropriate to the stated goal of increasing MEM candidate quality’ and the answer is categorically “no”.
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	Supervisory experience should be mandatory but the current proposal on how to obtain it is not practicable and would be highly detrimental to the industry. A minimum of 3 months as a UG Shift Supervisor would be an appropriate experience type and timeframe.

<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>The requirement for extraction face should be mandatory, as it already is under current experience requirements; the proposed timeframes are impracticable and do not appropriately support the stated goal of increasing MEM candidate quality.</p>
<p>Do you have any comments of a general nature?</p>	<p>As follows is a more detailed response in regard to the above questions:</p> <p>Feedback Regarding The Proposed Changes To Experience Requirements For Statutory Function Certificates Of Competence.</p> <p>I am pleased to have the opportunity to provide feedback to the proposed changes as part of the consultation process.</p> <p>Short answers to your questions raised in regard to the MEM role are:</p> <p><i>Are proposed changes to experience requirement adequate?</i> – The question should read ‘are changes warranted and/or appropriate to the stated goal’ and the answer is categorically “no”.</p> <p><i>Is the inclusion of supervision experience and propose length of supervision experience appropriate?</i> – supervisory experience should be mandatory but the current proposal on how to obtain it is not practicable and would be highly detrimental to the industry; this is discussed in detail below</p> <p><i>Are the recommended experience activities appropriate, specifically, being present at the extraction face</i> – the requirement for extraction face should be mandatory, as it already is under current experience requirements; the proposed timeframes are impracticable and do not appropriately support the stated goal.</p> <p>I have been working in both surface and underground metex operations for almost 40 years, have undertaken the MEM role and am one of the Examiners that has purportedly driven these proposed changes. I provided</p>

detailed feedback in relation to my concerns with the proposed changes nearly 12 months ago as well as raising these issues on subsequent occasions, yet it appears that little regard has been given to my feedback and concerns. Rather than changing the flawed proposal, definitions have been broadened in a bid to accommodate industry imperatives rather than meaningfully altering the overarching proposal, actually detracting from the very positive initial concept.

The discussion paper opens with a comment in the second paragraph that “Feedback to the Board from the examination panel indicates that many applicants were assessed as ‘not yet competent’ as they lacked the competencies to perform the function. Competence is the combination of skill, knowledge and experience.” This statement; it is entirely correct. It does not however detail or, more importantly, analyse the specific shortcomings of applicants and then propose specific pathway and competency requirements to address these.

As an Examiner, I can say that the common technical shortcomings of MEM candidates leading to a ‘not yet competent’ verdict include:

- Insufficient comprehension and working knowledge of the legislation
- Inability to confidently and systematically explain how to deal with a major emergency
- Inadequate understanding of the Safety Management System framework and operational application of same
- Lack of understanding of a wholistic approach to managing risk (identification of risk, management plans, hierarchy of controls, consultation etc.)

None of these are most appropriately addressed by the proposed increase of ‘underground time’. To the contrary, these skills are more adequately and quickly gained through being involved in broader operational management gained in an office-based environment. That is not to say that there isn’t some degree of exposure in

an underground environment however the exposure is less often and less comprehensive. As an example, an underground worker's understanding of actions in the event of an emergency is limited to calling "Emergency Emergency Emergency" proceeding to a safe point of refuge and awaiting instructions and then afterwards preserving the incident scene. A MEM is expected to understand such aspects as external notifications, control of the site, confirmation of whereabouts of all employees/contractors, ERT processes, liaison with third party responders etc.. The question that I and my colleagues will ask a prospective MEM is 'you are faced by this emergency situation; what would you do' – no amount of additional underground time will help the candidate with his or her answer. Candidates are failing on a lack of engineering, legislative and management skills, not an understanding of the underground environment and process. This is also a common view amongst the many senior industry and regulator representatives I have spoken with.

I strongly agree that supervisory experience is advantageous and until recently this was available to the candidate. Changes to the legislation has removed the industry's ability to provide this experience. I understand that the Board's view is that before a MEM candidate can obtain supervisory experience that the candidate must gain all the experience that are prerequisite for a UG Shift Supervisor. This is totally impractical and will unduly limit candidates. The career stream of a UG Shift Supervisor and MEM are quite different other than in the exceptionally rare circumstances that an underground worker 'progresses through the ranks', gains the required tertiary qualifications and is sufficiently talented to progress to a senior role. In the majority of cases the currently incumbent MEMs have commenced their career as a mining engineer and it is unreasonable (and unnecessary) for both the individual and the industry that a tertiary qualified individual spend 3 years as an underground worker. If this is adopted there will be a significant drop in the number of such individuals either wanting to or given the opportunity to gain the

prerequisite experience for MEM. As a result it is highly reasonable to conclude that this will result in a significant shortage of candidates and a much greater reliance on candidates that have gained their formal qualifications later in life after a career as an UG worker. While it is acknowledged that the latter can potentially produce some of the most competent and balanced managers in the industry, they are rare and even rarer are ones that have the 'engineering' mindset that would be expected of the MEM role.

Demanding that MEM candidates obtain 3 years of UG 'production face' experience, rather than having the desired effect of improving candidates pass rate will instead deter some of the most talented potential applicants and reduce the overall quality of position holders.

If the intent is to improve the quality of candidates, it is advantageous to all parties to mandate (say) 3 months of supervisory experience and propose realistic prerequisites (that differ from the current requirements for people without a mining engineer degree) and ensure the potential candidate get the required experience. Under the original proposal, I understand that it was expected that the candidate have 2 years of experience as a UG Shift Supervisor (making the amount of UG time 5 years) but the current discussion paper has broadened 'supervision' to include leadership and coordination'. This is valuable, and I dare say that a candidate would not be successful without it, however this approach removes the requirement for a candidate to spend adequate time as a UG Shift Supervisor – and THIS is some of the critical experience the candidate needs.

From my experience as an MEM and Examiner I recommend that the most beneficial course of action is retain the current 1 year UG experience requirement - as I challenge anyone to provide an evidence based argument that additional underground experience (as opposed to the same amount of time in technical and mine management) will enhance the MEM pass rate - and

to this requirement should be added a minimum of 3 months of UG supervisory experience. In addition, appropriate prerequisites need to be established in addition to fifteen months underground experience (12 months + 3 months UG Shift Supervisor) to support the development of potential candidates. I recommend that these prerequisites include safety and leadership training, emergency response experience and formalised ANTS requirements – all of these being critical for success as a MEM candidate. This training program and pathway should be mapped to produce candidates with the required skills within a reasonable time frame. As far as the ‘extended’ context of supervision, perhaps the current MEM requirements for 2 years ‘above ground’ experience can incorporate some or all of this – though a statement of service in roles (rather than a log book) should be acceptable as evidence of experience as the MEM exams are the determinant of capability.

Although the above relates to UG Metex, the principles and logic is directly applicable to the Quarry Manager position and potentially surface coal. I am not experienced in UG coal mining so cannot comment with authority in regard to this.

I will be more than pleased expand on any of the above and/or

discuss any issues you wish if you require. In closing, I remind you that the stated objective is to improve the preparedness of candidates for statutory roles. The logical way to do this is to define the deficits and work back from these to develop solutions – not to simply mandate increased experience timeframes and expect that these will somehow provide the desired outcomes.

7. Luke Neesham

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Email	
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Postal address (if different)	c/- Cowal Gold Operations, Lake Cowal
Are you an individual representing an organisation	No
If you are representing an organisation, please name it	
<p>Privacy – please tick if appropriate</p> <p><input checked="" type="checkbox"/> I consent to my submission being published in full</p> <p><input type="checkbox"/> I consent to my submission being published excluding personal information</p> <p><input type="checkbox"/> I do not want my submission published on the NSW Resources Regulator website</p>	
<p>DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?</p>	
Are the proposed changes to experience requirements adequate?	Yes, pending confirmation of points mentioned below
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	Yes, with qualifications as below
Are the recommended experience activities appropriate, specifically, being present at extraction?	The activities are confusing, unclear and poorly defined. They use coal-mining terminology that is inappropriate and unfamiliar to metalliferous mining.
Do you have any comments of a general nature?	Firstly, unless noted otherwise, the comments below apply only to the Certificates for Mining Engineering Manager and Underground Mine Supervisor of underground mines other than coal mines.

It is accepted that the NSW mining regulation system is primarily focussed on coal mines with metalliferous and industrial mineral mining largely an afterthought when compared against other jurisdictions in Australia. This has always been the case. However the discussion document appears to have been prepared without a clear familiarity with how non-coal mining works. This is especially apparent in the use of terminology that does not usually apply to metalliferous mines, resulting in first-pass review of the document causing immediate confusion and leading to misunderstanding of the intended content.

The document is intended to be read by managers and engineers. People who are typically time poor and sometimes less-able than others to absorb information presented in a wordy format (ie, not usually lawyers). Also people who may not have read the regulations for many years and often not in their entirety given that the current regs are less than 5 years old or those operating under mutual recognition. The document would have benefitted greatly from an earlier clarification of the terms “practical” and “supervision”. It would also have benefitted from a much clearer and earlier mention of the point that specific details of current pre-requisites are proposed to be retained as guidance rather than mandated.

The use of the word “practical” is poor. This is interpreted by most if not all metalliferous miners as “tool time”, operating equipment or working outside of the mine office. On second or third reading of the document it becomes clear that this is not the intent or at least it appears that the actual intent is “on or about a mine”, rather than stuck in some office in Sydney. This has led to general discussions with a number of other ticket holders where until someone has read the document in full a couple of times everyone thinks it is proposing 3 or 5 years on the tools and no time to learn how to be a mining engineer. From correspondence it appears that even those who have read it through may still think that to an extent. Even after reading many times it is not entirely clear whether the actual tool-time requirement is intended to remain at 1 year or not.

Similarly for the use of the word “supervision”. Except in Queensland, this word is usually accepted as synonymous with

“Shift boss”. An earlier definition of the intent would have helped to understand that it is intended to be more similar to the interpretation under the QLD system, eg. The need for all “supervisors” to have undertaken safety training resulting in most tech services doing S1, S2, S3 because anyone issuing an instruction anywhere in the mine is interpreted to be a supervisor.

The meaning of the word “extraction” is unclear. It appears to be intended to apply to both development and stoping and ore and waste, however on first pass it could be interpreted to mean only stoping.

The meaning of the term “at the face” and “present at an extraction face” is unclear – this terminology does not usually apply in a metalliferous sense and seems as if it may be intended to apply to any part of the mine – eg. Driving trucks and loaders or on Service crew. But after reading a couple of times seems also to apply to working as a Ventilation or Drill & Blast Engineer, hardly anywhere near a face 99% of the time.

Having come to this understanding, it is unclear as to whether time spent supervising also counts as time spent being present at a face? eg. A mining engineer in a Shiftboss role or even as a Drill and Blast Engineer. Is it intended that rather than including time, it excludes time spent driving trucks or as a mine-clerk (or in positions that do not issue instructions)? Assuming that mine-clerk counts as “practical” time, which it certainly should if truck driving or short-term scheduling also count. Does experience in non-engineering technical roles count? Geologist, Surveyor, those sorts of roles? Is this intended to be covered in guidance? (update – scratch that, if rehabilitation and metallurgy currently count then they obviously will).

The use of the word “ratio” is applied to fractions. This is also unclear. Are the ratios 1:2 to get 1/3 or does 1/3 represent 25%? It would be clearer if expressed as “in the range of 30-60%” or “not less than 30% and not more than 70%” or similar.

There are also a few typos and use of terms that may not be familiar to many, eg. What is ANTS?

In its favour, the idea of using the current pre-requisites as guidance going forward makes sense to a point. There are some

mines (sorry, mines other than coal mines) in NSW where drilling and use of explosives is limited (block caves spring to mind) and so exposure to these activities could be difficult. Whether a person should be unrestricted in being able to Manage a mine without having drill and charge up time though is perhaps questionable. It is I suppose no different to a Western Australian 1st Class ticket allowing management (in WA) of any open pit without having worked in one. A long-standing shortfall of their system.

There is no mention of qualifications in the prerequisites. I assume that this area will remain as before and is merely outside the scope of the discussion document.

One final point, perhaps to extend the discussion or perhaps the source of the discussion in the first place. Under the “old” graduate program system - pre-1995 back when mining engineering was more about directing and monitoring semi-professional, semi-autonomous miners than the technical side of mining - it was usual to do a couple of years on the tools to cover the requirements of a shift-boss ticket and then spend a year as a shift boss. To a (shorter) extent this continues today with graduates working for Mining Contractors, however it is rare for any graduate working for an Owner in the past 25 years to get front-line supervision experience. The old Northern Territory tickets actually required this in the regulations. Perhaps a clearer guidance around front-line v’s “direct” and “general” supervision could be included. Also a requirement for training in how to supervise (say Cert III or IV in FLM), although that is perhaps outside the mandate of the Regulator and could create its own little industry that would easily get out of hand in the way that the whole JORC-compliance industry has.

8. Individual submission

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	No
If you are representing an organisation, please name it	NA
<p>Privacy – please tick if appropriate</p> <p><input type="checkbox"/> I consent to my submission being published in full</p> <p><input checked="" type="checkbox"/> I consent to my submission being published excluding personal information</p> <p><input type="checkbox"/> I do not want my submission published on the NSW Resources Regulator website</p>	
DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?	
Are the proposed changes to experience requirements adequate?	No.
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	Yes but doesn't go far enough.
Are the recommended experience activities appropriate, specifically, being present at extraction?	Yes, but could be extended.
Do you have any comments of a general nature?	A Supervisor should have at least 5 yrs experience UG, including at least 12months direct experience related to ground support and reading ground conditions. Must also have had at least 6 months operating a drill and dealing with ground conditions.

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	<p>Should have 6 months charging experience to understand how explosives work and what they do.</p> <p>How do you get the required “Supervisor” experience without a practicing certificate unless you work as a 2IC? This will be very difficult for a small mine to undertake.</p>
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9. Individual submission

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	No
If you are representing an organisation, please name it	
<p>Privacy – please tick if appropriate</p> <p><input checked="" type="checkbox"/> I consent to my submission being published in full</p> <p><input checked="" type="checkbox"/> I consent to my submission being published excluding personal information</p> <p><input type="checkbox"/> I do not want my submission published on the NSW Resources Regulator website</p>	
<p>DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?</p>	
Are the proposed changes to experience requirements adequate?	Yes I support the change in requirement to 5yrs experience before sitting a Mining Engineering managers Ticket, however the proposed breakdown on the that 5yrs requirement is not suitable or practical for individuals or corporations to achieve.
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	Yes I believe there is a need for people sitting a Mining Engineering Managers Ticket to have supervisory experience. It is important to understand the practical constraints of the role in an underground environment and the daily changes and decision making required at that level. It is also important to be able to manage a team of people at the operator level - attitudes, experience, skill sets and resourcing. However I believe a minimum six months in shift supervisor or construction/ development supervisor role would be adequate.
Are the recommended experience activities	No, Three years' experience at an extraction face is not practical for an individual having completed a four year degree, as stated

<p>appropriate, specifically, being present at extraction?</p>	<p>above I support the move to five years' experience however the required experience also needs to be in Engineering roles as well as at the face and supervising. In both coal and metals mines a Mining Engineering Manager needs to have spent time in the ventilation officer role, in mine planning and scheduling, development design and production design, drill and blast roles. A minimum one year experience at the face with specific requirements around drilling, blasting, transport and ground support as per the current requirements is adequate and more useful than spending three years driving a truck.</p> <p>For an organisation employing a Mining Engineer, providing three years practical experience is not practical or sustainable. The industry as a whole is lacking mining graduates and as a manager of a technical team I do not have the resources to provide engineers 3 years of underground experience, while not providing them with growth and development of the skills they studied for.</p>
<p>Do you have any comments of a general nature?</p>	<p>Again I support 5 years' experience requirement and I believe for metal mining the current requirements cover the detailed knowledge required such as drilling, blasting, ground support, ventilation, mine rescue, mine design and mine planning, these may need re-worded and expanded but it is important to specify these as the Mining Engineering Manager needs all of these skills to adequately ensure the principle mining hazards are addressed at an operation. Simply extraction and supervisory experience are insufficient to address all of the principle hazards, the specified 5yrs need to address the current requirements with more time spent as an engineer than an operator.</p> <p>On similar note I feel the underground coal requirements need to be more specific in the required experience as per the metal requirements to reflect the principle hazards such as mine ventilation, mine planning, design and scheduling, subsidence, ground support, inrush and cover both drift development and long wall and pillar extraction. Again 3 years extraction experience (for instance sitting on a shuttle car) does not provide understanding in all mining hazards and controls.</p>

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	<p>For surface mining OCE role should also reflect the current Quarry manager specific details such as three months involved in use of explosives, these specifics need to remain mandated not a guide.</p>
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10. Cement Concrete and Aggregates Australia

Name	Jason Kuchel
Email	
Street address	Level 10, 163-175 O’Riordan Street, Mascot NSW 2020
Postal address (if different)	
Are you an individual representing an organisation	State Director NSW
If you are representing an organisation, please name it	Cement Concrete and Aggregates Australia

Privacy – please tick if appropriate

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DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?

<p>Are the proposed changes to experience requirements adequate?</p>	<p>CCAA has received a broad range of views about the proposal to increase the practical experience required by a Quarry Manager by 1 year and 2 years “present at extraction”.</p> <p>We believe that further consultation with industry is necessary to flesh out the content of these changes in further detail. This could easily be done through a workshop or forum that would enable more direct feedback and industry involvement.</p> <p>While CCAA supports moves to enhance industry safety and the level of practice experience required by a Quarry Manager, we believe that any further increases in years or time experience required would not be impractical given the prevailing constraints and conditions across the sector.</p>
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	<p>Critically, measures to ensure that quarry sites have adequate time to manage the transition of the workforce requiring the additional practical experience are vital.</p> <p>We also believe that the Regulator needs to provide clear and consistent guidelines with regards to its assessment of “experience”. This has not been made clear and requires further definition.</p>
<p>Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?</p>	<p>CCAA is generally supportive of the proposed length of supervision experience, however any further increases in the time required for supervision would not be practical for our sector.</p> <p>It is critical that measures are undertaken to ensure that the quarry industry has the necessary transitional time to plan and prepare for this increase.</p>
<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>Further clarification is necessary to define the term “being present at extraction”.</p> <p>CCAA believes that supervision of a quarry is multi-faceted, and the experience should be taken as experience (of time) at the whole site, and not just at the extraction face.</p>
<p>Do you have any comments of a general nature?</p>	<p>CCAA supports the inclusion of the RII60215 Advanced Diploma of Extractive Industries Management qualification within the Guide as one that should be accepted by the Regulator.</p> <p>We welcome the opportunity to work with the Regulator to deliver a workshop or industry forum opportunity to further flesh out the content presented within the proposed changes to New South Wales Certificate of Competence experience prerequisites.</p>

11. Mine Managers Association of Australia Inc

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Postal address (if different)	PO Box 1116, Toronto NSW 2283
Are you an individual representing an organisation	Yes
If you are representing an organisation, please name it	Mine Managers Association of Australia Inc

Privacy – please tick if appropriate

- I consent to my submission being published in full
- I consent to my submission being published excluding personal information
- I do not want my submission published on the NSW Resources Regulator website

DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?

Are the proposed changes to experience requirements adequate?	<p>We have no concerns related to the length of practical experience required but we do with the supervision element.</p> <p>We assume that it has been considered that a graduate will take at a minimum of at least five years from graduation to achieve the prerequisites to become a manager of mining engineering but could be appointed as a mine manager directly after graduation as that position requires no qualification. Indeed, the mine manager need not have any qualification in mining of any kind.</p>
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	<p>We have difficulty in comprehending how a deputy candidate can gain supervisory experience. If in a production crew do they override the deputy who has the qualification? So how do they gain supervisory experience in the winning of coal.</p> <p>In an outbye setting we can foresee the candidate supervising the general underground crew or contractors but we assume they would still be subject to the supervision of the deputy responsible for that area of the mine? Will this supervisory experience fulfil the requirement?</p>

	<p>It is difficult to contemplate supervisory roles when statutorily qualified deputies normally fill those roles unless some 'leading hand' role can be designed.</p>
<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>In our opinion, yes.</p>
<p>Do you have any comments of a general nature?</p>	<p>We do find it somewhat incongruous that certificates of competence are being enhanced, which we fully support, however, the position of mine manager or the most senior company official onsite is not required to have a qualification to their name. This, we believe, ignores the history of the coal industry. Innumerable inquiries and commissions have recommended that certificates of competence are critical and that the standards should be to the highest level and yet the person most influential on a mine site does not require any competence in mining.</p> <p>We also have issues with the removal of Part A of the Mine Manager's exam's written component. This will effectively eliminate all apart from degree candidates. However, as that is not part of this consultation document we will expand on that concern under separate cover.</p>

12. Clean Teq Sunrise Pty Ltd

Name	Michael Wood
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	Yes
If you are representing an organisation, please name it	Clean Teq Sunrise Pty. Ltd.

Privacy – please tick if appropriate

- I consent to my submission being published in full
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- I do not want my submission published on the NSW Resources Regulator website

DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?

<p>Are the proposed changes to experience requirements adequate?</p>	<p>The proposed competencies for a Quarry Manager are listed as follows;</p> <p>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 coal mining activities. May include up to one year in any other class of mine.</p> <ol style="list-style-type: none"> 1. It is unclear why this refers to responsibilities for surface coal mining activities for a Quarry Manager’s competency. I suspect the word “coal” should be deleted as shown in strikethrough above. 2. The sentence “May include up to one year in any other class of mine” contradicts the opening statement of “A minimum of four years practical mine (<u>other than underground or coal</u>)”
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Proposed changes to experience requirements for statutory function certificates of competence

	<p>experience. It is unclear from these statements as to whether underground or coal experience can be included in the four years practical mine experience.</p>
<p>Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?</p>	
<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	
<p>Do you have any comments of a general nature?</p>	

13. Aeris Resources and its subsidiary operating company Tritton Resources (Tritton Mines – Nyngan NSW)

Name	Ian Sheppard
Email	
Street address	520 Wickham Street, Fortitude Valley, QLD 4006
Postal address (if different)	
Are you an individual representing an organisation	Yes
If you are representing an organisation, please name it	Aeris Resources and its subsidiary operating company Tritton Resources (Tritton Mines – Nyngan NSW)
<p>Privacy – please tick if appropriate</p> <p><input type="checkbox"/> I consent to my submission being published in full</p> <p><input type="checkbox"/> I consent to my submission being published excluding personal information</p> <p><input type="checkbox"/> I do not want my submission published on the NSW Resources Regulator website</p>	
<p>DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?</p>	
Are the proposed changes to experience requirements adequate?	<p>Our answers are specific for statutory functions at Underground mines other than coalmines</p> <p>For Underground Supervisor the proposed total of three years’ experience is agreed as appropriate.</p> <p>For Manager Mine Engineering (MME) the proposed total of five years’ experience is agreed as appropriate.</p> <p>We have concerns regards the details of required supervisory experience within the above total experience periods.</p>

Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?

In general, we agree that both Underground Supervisor and Manager Mine Engineering should be required to have supervisory experience prior to obtaining a CoC. However, the details of the proposed supervisory experience are not practical and confusing.

For the Underground Supervisor CoC the requirement for six months “supervising or coordinating”, with logbook evidence provided, is poorly defined. In metalliferous underground mines;

1. There are typically no “supervisory” positions within the organisation between the crew and the statutory Underground Supervisor. Hence very limited opportunity to obtain relevant “supervisory” experience, under the criteria that it involves “applying the requirements of the safety management system”.
2. Most crew employees work independently and do not have an opportunity to officially “supervise or coordinate” another employee, except for the occasional trainee.
3. More experienced employees will frequently act as the senior members of a team directing the work of less experienced employees; however, this role is not to be confused with that of the recognised Supervisor who has authority under the safety management system. The standard example is the Jumbo operator directing the activity of a serviceman off-sider; in charge of the workplace but not actually supervising. There are other roles that do involve local control that provide little of the experience the industry wants of Underground Supervisor; e.g. a diamond driller will supervise the drill off-sider, but this experience is of limited use in the broader mine environment.
4. Under the recent legislation changes there are no longer opportunities for persons without a CoC to be appointed as acting into the role of Underground Supervisor for short periods. Historically short periods acting in the supervisor’s role were the best method of training people to take the

	<p>Underground Supervisor role full time.</p> <p>5. What is the definition of “six months”? Different roster patterns could alter the numbers of shifts involved considerably. This increases the confusion regards the requirement.</p> <p>6. The logbook concept for recording suitable “supervisory” experience will be difficult in practice. People move miens frequently and are not likely to be keeping their own logbooks.</p> <p>We suggest;</p> <ol style="list-style-type: none"> 1. Introduce the concept of Acting Underground Supervisor that allows a candidate to demonstrate competency in “applying the requirements of the safety management system”, for periods not exceeding a week (?); perhaps under the guidance of a person with CoC, (i.e. mine Superintendent). This is a clear definition of suitable supervisory experience. 2. If acting roles are not possible, allow Certificate 3 or 4 in Front Line Management qualification, (or similar), as a substitute for the “supervisory” experience. 3. If the person has “significant mine experience” then waive the six months “supervisory” experience requirement. Significant could be over five years. 4. Change the time criteria to a number of shifts, rather than 6 months, to accommodate various roster patterns. <p>For the Manager Mine Engineering, the requirement for two years supervisory role is poorly defined. We would normally expect a portion of this two-year period to be experience working as a front-line Underground Supervisor, not simply in some vague supervisory or coordinating role. However, the requirement for two years’ time at the extraction face to obtain a Supervisors CoC is too long for a mine engineer. So they then won’t get the chance to work as a Underground Supervisors! This is a problem and breaks industry custom</p>
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	<p>and practice that has worked well for decades. How can we have a Manager Mine Engineering who does not first have an Underground Supervisor CoC?</p> <p>We suggest;</p> <ol style="list-style-type: none"> 1. Degree qualified mine engineer is required to have one-year extraction face experience, before application for an Underground Supervisor CoC. 2. Manager Mine Engineering CoC requires minimum of three months, (or rather a set number of shifts), experience as Underground Supervisor. 3. Manager Mine Engineering requires total of two years of either supervisory or appropriate production engineering experience, (i.e. at a mine, required to be regularly underground, training in emergency response, etc). The time as an Underground Supervisor is included in this two- year time period.
<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>The requirement for time at the extraction face should be mandatory, as it already is under current experience requirements.</p> <p>For Underground Supervisor the three years’ experience is appropriate, (except for degree qualified candidates).</p> <p>For Manager Mine Engineering the three years’ experience at an extraction face is considered to excessive. Three years at the face will not make a good Mine Engineering Manager and will severely limit the number and quality of candidates.</p> <p>We suggest;</p> <ol style="list-style-type: none"> 1. The three years for a Mine Engineering Manager are greater than the two years for an Underground Supervisor. So, it would take an engineer longer working at the face than a non-degree qualified Underground Supervisor? The times for each position should be, at the least, the same, and we suggest a one-year time for degree qualified engineers. Keep the historical custom and practice of

	<p>progression from face extraction time, then into Underground Supervision, then production engineering experience, then onto a Manager Mine Engineering.</p> <p>Re-define the requirement for Face extraction time for Mine Engineering Manager to include experience in production engineering skills needed by an engineering manager such as; geotechnical engineering design or monitoring, drill and blast, emergency response training, activity scheduling, surveying, remote equipment operation etc. The examining Board can determine if the range of experience suits this broader definition of face extraction time.</p>
<p>Do you have any comments of a general nature?</p>	<p>The nature of the mining is changing with rapid adoption of new technology and the mobility of the workforce. The statutory positions in the future will need to understand robotics, AI, automated equipment, different methods of mining such as caving. The requirement for statutory positions must be flexible to cope with the emerging technology and the nature of the experience gained by both degree qualified people and those who come through the practical pathways. For example: does working with remote operated equipment in a surface control room count towards “extraction face time”? And conversely, does lack of experience in the operation of automated equipment and the associated safety systems make a person not eligible for a statutory position?</p> <p>A review of the guidelines on what is acceptable experience should be better defined than the term “extraction face time”. A Manager Mine Engineering should understand the requirements for appointment of an Underground Supervisor to their particular mine, and often that may be different to the traditional definition of extraction face time.</p> <p>Increasingly the industry will rely on people who have gained their early experience in the industry outside of Australia. How the statutory positions allow for non-Australian trained personnel should be a consideration for the Board and articulated in the guidelines.</p>

14. Association of Mining and Exploration Companies

31 July 2019



Mr Anthony Keon
Executive Director, Resources Regulator
NSW Department of Planning Industry and Environment
NSW Resources Regulator – Regulation Development Unit
PO Box 344 Hunter Regional Mail Centre 2310 NSW

Via email: rr.feedback@planning.nsw.gov.au

Dear Mr Keon

Submission on Discussion Paper: *Proposed Changes to Experience Requirements for Statutory Function Certificates of Competence*

AMEC (Association of Mining and Exploration Companies) welcomes the opportunity to provide comment on the Discussion Paper on *Proposed Changes to Experience Requirements for Statutory Function Certificates of Competence* (Discussion Paper) provided by NSW Resources Regulator.

The Association of Mining and Exploration Companies (AMEC) is the peak national industry body representing hundreds of mineral exploration, mining companies and their service providers throughout Australia and has the largest membership base in the resources industry. AMEC has a focus on explorers and emerging miners and supports them to maximise Australia's natural resource potential.

AMEC supports responsible regulation and ensuring appropriate competency standards for statutory functions at mine sites, however, there are industry concerns regarding the basis and practicality of the proposed changes. We are concerned that increasing experience time requirements will not necessarily improve the competency of the people who keep our mines safe.

The operation and staffing of large coal mines differs from small metalliferous mines and these differences have not been appropriately accounted for in the proposed changes. Some of the changes are impractical for small operations and could drive people out of the industry, and lead to even further skills and competency shortages.

Further, AMEC is concerned that the Discussion Paper does not include comparisons with other Australian or international jurisdictions. This should have been assessed and included in the proposed changes both to benchmark and maximise transferability of skills and roles, especially important with today's mobile workforce.

AMEC responses to the questions posed in the Discussion Paper relating to the metalliferous sector are as follows:

1. Are the proposed changes to experience requirements adequate?

Experienced industry members, including a mining engineering manager examiner, tell us that the proposed changes in the Discussion Paper are not appropriate. There are industry concerns that the proposed changes not will deliver on the objective

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Proposed changes to experience requirements for statutory function certificates of competence

of ensuring competency for statutory functions and ensuring appropriate levels of preparedness and experience for these important positions.

AMEC agrees with the position in the Discussion Paper that “competence is the combination of skill, knowledge and experience.” However, we are concerned that simply changing length of experience requirements does not necessarily provide the skill and knowledge components of competency.

AMEC understands from an examiner that common technical shortcomings of candidates leading to a ‘not yet competent’ outcomes for mining engineering manager candidates include:

- Insufficient comprehension and working knowledge of the legislation
- Inability to confidently and systematically explain how to deal with a major emergency
- Inadequate understanding of the Safety Management System framework and its operational application
- Lack of understanding of a holistic approach to managing risk (including identification of risk, management plans, hierarchy of controls, consultation etc).

None of these factors are addressed by the proposed increase on ‘underground time’. These skills are more adequately and quickly gained through being involved in broader operational management, often gained in an office-based environment. There is some degree of exposure in an underground environment, however the exposure is less often and less comprehensive.

As an example, an underground worker’s understanding of actions in the event of an emergency is generally limited to calling “Emergency Emergency Emergency” proceeding to a safe point of refuge and awaiting instructions and then afterwards preserving the incident scene. A competent mining engineering manager is expected to understand such aspects as external notifications, control of the site, confirmation of whereabouts of all employees, contractors, emergency response team processes, liaison with third party responders etc. No amount of additional underground time will help the candidate with his or her response to the question posed by examiners of “What would you do in this emergency scenario”. Candidates are failing on a lack of engineering, legislative and management skills, not an understanding of the underground environment and process. This is a common view amongst the many senior industry and regulator members.

2. Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?

Supervisory experience should be mandatory, but the current proposal detailed in the Discussion Paper on how to obtain this experience is not practical, especially for small metalliferous mines, and would be highly detrimental to the industry.

AMEC understands that changes to the legislation has made it more difficult to obtain supervisory experience. We understand that candidates must obtain supervisory experience, but that the experience is a prerequisite for underground shift supervisors. This is impractical for small mines and will unduly limit candidates. The career path of an underground shift supervisor and manager are quite different, and that other than in the very rare circumstances that an underground worker ‘progresses through the ranks’, gains the required tertiary qualifications and is sufficiently talented to progress to a senior role. In the majority of cases the currently incumbent managers have commenced their career as a mining engineer and it is unreasonable (and unnecessary) for both the individual and the industry that a tertiary qualified individual spends three years as an underground worker.

If these changes are adopted there will be a significant decrease in the number of people either wanting to or given the opportunity to gain the prerequisite experience as a manager. This will result in a significant shortage of candidates and a much greater reliance on candidates that have gained their formal qualifications later in life after a career as an underground worker. This is at a time when industry is already concerned that as we are coming back into a boom cycle, there will be a serious skill shortage.

If the intent is to improve the quality of candidates, three to six months of supervisory experience could be mandated as a realistic prerequisite. The Discussion Paper notes that 'supervision' has been broadened to include 'leadership and coordination'. This is valuable, but it is also important for a candidate to spend an adequate time as an underground shift supervisor.

AMEC recommends that for a mining engineering manager, the current one year of experience underground is retained with the addition of three months of supervisory experience. In addition to this fifteen months underground, additional pre-requisites such as safety and leadership training, emergency response experience and formalised associated non technical skills (ANTS) requirements as these are critical for a successful manager. This training program and pathway should be mapped to produce candidates with the required skills within a reasonable time frame. A statement of service in roles (rather than a log book of experience only) should be acceptable as evidence of experience, with the exams as the determinant of capability.

3. Are the recommended experience activities appropriate, specifically, being present at extraction?

If "extraction" is taken to mean direct mining work including drilling, charging, loading and primary service work (vent, pumping, providing services at the mining face) then the current requirements for extraction experience is generally accepted by industry as both effective and valuable. This should remain as mandatory, with the proposed timeframes excessive, impracticable for many metalliferous operations will not necessarily increase competence.

AMEC looks forward to the further consultation on this important matter for the NSW minerals industry. Please contact Lucy McClean, our NSW Manager (lucy.mcclean@amec.org.au or 0412 283 252) if you have further queries or to progress this matter.

Yours sincerely



Graham Short
Deputy Chief Executive Officer

15. CMOC Northparkes Mines

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	Yes
If you are representing an organisation, please name it	CMOC Northparkes Mines
<p>Privacy – please tick if appropriate</p> <p><input checked="" type="checkbox"/> I consent to my submission being published in full</p> <p><input checked="" type="checkbox"/> I consent to my submission being published excluding personal information</p> <p><input type="checkbox"/> I do not want my submission published on the NSW Resources Regulator website</p>	
<p>DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?</p>	
Are the proposed changes to experience requirements adequate?	The change in requirement to 5 years' experience is adequate (i.e. this means you can't come out of your graduate role and sit your MEM exam). However, the proposed breakdown is not suitable, nor practical for engineers and/or businesses (e.g. at least three years being present at an extraction face to support mining operations and openings).
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	There is value in the MEM statutory function having supervisory experience; as it is important to understand the practical constraints of the role, as well as the daily changes and decision making required at that level. It is also important to be able to manage a team of workers, however, 6 months experience as an underground supervisor (with direct control over the workforce) is adequate.
Are the recommended experience activities appropriate, specifically, being present at extraction?	No. Three years at the extraction face is not practical nor sustainable for an engineer (or a business). The MEM function is different to the underground supervisor function. The MEM function has a varied technical component,

	<p>which does not come from being present at the extraction face; these areas include:</p> <ul style="list-style-type: none"> – comprehension and working knowledge of the legislation – comprehension and understanding of the safety management system framework and the operational application of same – holistic approach to managing risk, including: <ul style="list-style-type: none"> ▪ risk identification ▪ PHMP / PCP ▪ hierarchy of controls ▪ communication and consultation – technical mine management (examples include): <ul style="list-style-type: none"> ▪ drill and blast ▪ ground support ▪ ventilation ▪ ERT ▪ mine design, planning and scheduling ▪ inrush – dealing with and responding to emergencies, including: <ul style="list-style-type: none"> ▪ external notifications ▪ ERT processes, including external resources ▪ co-ordination of technical response (i.e. ventilation ground control etc.) ▪ returning to normal operations <p>Engineers need an appreciation of the risk and hazards in the workplace, but do not need to be expert operators. We need to be creating competent leaders.</p>
<p>Do you have any comments of a general nature?</p>	<p>The statutory MEM function is a varied technical role. Northparkes supports 5 years’ experience as a mining engineer to adequately understand the principal mining hazards and to ensure adequate controls are in place. However, time spent at the extraction face and in a supervisory role is only one component of the role and these combined are insufficient to understand all the principal hazards. The 5 years’ experience needs to be spent as an engineer (more so than as an operator).</p> <p>Note: there are no proposed changes to the underground supervisor function.</p> <p>Note: the statutory electrical engineer role for underground mines other than coal mines, requires you to hold a coal electrical engineering practising certificate OR have evidence of compliance with Australian Engineering Competency Standards Stage 2 and be registered on the National Engineering Register. Should an underground METEX electrical engineer pursue the first option,</p>

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Proposed changes to experience requirements for statutory function certificates of competence

	then the above comments for the MEM role would be applicable to this function (particularly around 2 years supervision and 1 year at the extraction face).
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16. Individual submission

(1 of 4 submissions)

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	No
If you are representing an organisation, please name it	
<p>Privacy – please tick if appropriate</p> <p><input type="checkbox"/> I consent to my submission being published in full</p> <p><input checked="" type="checkbox"/> I consent to my submission being published excluding personal information</p> <p><input type="checkbox"/> I do not want my submission published on the NSW Resources Regulator website</p>	
<p>DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?</p>	
Are the proposed changes to experience requirements adequate?	<p>My comments relate to the position of Quarry Manager Other Than Coal.</p> <p>This question should read “Are the proposed changes to experience requirements appropriate”</p> <p>The current requirements for experience are rather detailed, and I believe that the current exposure to various practical experiences is more suitable to create a Quarry Manager who can assess risks. If the plan is to maintain the current requirements as pre-requisites for guidance, it implies that the current requirements are adequate.</p>
Is the inclusion of supervision experience and the proposed	<p>The proposal states that the experience is required in mines other than underground or coal, however supervision is required of surface coal mining activities.</p>

<p>length of supervision experience appropriate?</p>	<p>Supervisory experience is difficult to obtain in a quarry/open pit environment where contractors are used. Secondment into an operational team by the client is possible, but a supervisor role is more difficult to place someone into, thus limiting the opportunities for people to obtain necessary qualifications.</p>
<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>Three months of handling and using explosives along with nine months of other extraction activities is appropriate as is, without an additional year being added.</p> <p>Practical experience is essential for any manager appointment. I don't believe more suitable candidates will be created by increasing the current requirements, with the probable result being less applicants.</p>
<p>Do you have any comments of a general nature?</p>	<p>The proposed changes justification is to align with the Coal Mines Mining Engineer, which is an underground role. It is unclear why a non-coal quarry would need to be aligned with an underground coal mine qualification.</p>

(2 of 4 submissions)

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	No
If you are representing an organisation, please name it	

Privacy – please tick if appropriate

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DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?

Are the proposed changes to experience requirements adequate?	<p>These comments relate to the Mining Engineering Manager.</p> <p>The amendment from 3 years to 5 years of total underground mine experience is acceptable to gain a fuller understanding of underground hazards and risks, but the remaining changes are neither adequate nor feasible.</p>
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	<p>The Regulator has issued a Position Description for a Metex MEM, based on Schedule 10, clause 25 which states that the function of a MEM “is to develop, supervise, monitor and review the mining engineering standards and procedures forming part of the mining operations at the mine.”</p> <p>It expands on supervision relating to the supervision of standards and procedures through the SMS.</p> <p>To enable this to occur, a MEM should have a greater understanding of WHS hazards and risks, including risk assessment</p>

	<p>processes. This type of training is much more suitable to the objective of a MEM.</p> <p>There is also a requirement for “general supervision and to a lesser extent direct supervision, as required”. While this is benefited by some exposure to supervision (i.e. 3 months), it does not align with the proposed requirement for 2 years in a supervisory role. With the proposed changes to the Shift Supervisor requirements, along with the inflexibility to supervise without a CoC, gaining supervision experience is extremely difficult.</p>
<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>Only 11% of Australia’s non-coal mines are located in NSW. To have triple the required “extraction face” time to any other jurisdiction in Australia (Qld = 9 months; SA = 12 months; WA = 12 months) will result in people choosing to gain certification in other states, and ultimately choosing to work elsewhere. For those who choose to apply for mutual recognition to work in NSW, they will be well versed in other legislation, and may transpose those regulations with the governance required within NSW.</p> <p>From a hiring manager perspective, there is a severe lack of mining professionals available to fill engineering roles, and minimal university students providing growth to the industry. It is already hard to release an engineer to gain extraction experience, however it is done to create more informed engineers, especially giving them a clearer understanding of hazards associated with the underground environment. The current 12 month requirement given defined charging experience has proven suitable for many years. To increase this to 3 years will not yield any further understanding and will most likely result in even less candidates (technical people are usually less inclined to continue with extended periods of manual labour). It is also a likely conclusion that it will impact the industry as a whole, as it will reduce the available workforce to complete engineering tasks.</p> <p>If the current experience pre-requisites will still be used as guidance to applicants and the examiners, then why should they be altered/removed in the first place.</p>
<p>Do you have any comments of a general nature?</p>	<p>While my above comments are directly related to Metex, the same principles and concerns apply to the Coal MEM.</p>

(3 of 4 submissions)

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	No
If you are representing an organisation, please name it	

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DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?

Are the proposed changes to experience requirements adequate?	<p>My comments relate to the position of Open Cut Examiner.</p> <p>I believe the original intention behind the exemption from 3 years to 1 for an engineering degree relates to the risk management courses within the degree, thus providing the candidate with the required skills for an OCE.</p> <p>The change for either a degree-qualified or operator to complete 2 of production experience is less valuable than having safe design and risk management skills.</p> <p>I do not believe there is additional benefit to be gained from an additional year of practical experience, and will not aid with the justification of creating a suitable progression from OCE to MEM.</p>
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	<p>Supervisory experience is difficult to obtain in a quarry/open pit environment where contractors are used. Secondment into an operational team by the client is possible, but a supervisor role is</p>

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	more difficult to place someone into, thus limiting the opportunities for people to obtain necessary qualifications.
Are the recommended experience activities appropriate, specifically, being present at extraction?	As per first question. Fully agree that practical experience should be a prerequisite. There does not however appear to be a valid argument to change the current requirements. Proposed changes are more likely to reduce candidate quality rather than achieve the intended goal of increasing it.
Do you have any comments of a general nature?	

(4 of 4 submissions)

Name	Personal information redacted
Email	
Street address	
Postal address (if different)	
Are you an individual representing an organisation	No
If you are representing an organisation, please name it	

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DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?

Are the proposed changes to experience requirements adequate?	<p>My comments relate to the position of Underground Supervisor – Metex.</p> <p>There is minimal change in operational experience, however the wording is more confusing for Metex as to the definition of “extraction face”. The 3 year practical experience is satisfactory.</p>
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	<p>The justification implied in the discussion paper is that there are multiple supervisory opportunities underground. I have worked at over half a dozen operations where there are less than 30 people on an underground crew, therefore only requiring one supervisor. To have multiple tiers of supervision just to enable personnel to gain necessary experience is an outlandish suggestion. For new operations during initial decline development where there is a crew of 3-4 people, it is usual for the Shift Supervisor to also be the jumbo operator.</p>

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Proposed changes to experience requirements for statutory function certificates of competence

	<p>There have been questions asked of the regulator regarding someone to act as the relief Shift Supervisor as long as there is a suitable competent person on site i.e. the MEM. We have been informed that this is not acceptable. This makes gaining 6 months of supervisory experience almost impossible for a person to gain, without a company paying 2 people to complete the one role (the ticketed Shift Supervisor and the person gaining their experience). This is unsustainable for companies, and impractical for the “trainee”, as they will never gain true supervisory experience while they are being directly supervised themselves.</p> <p>Unless an exemption is granted to allow a relief Shift Supervisor without a CoC to supervise, then the inclusion of supervisory time is inappropriate.</p>
Are the recommended experience activities appropriate, specifically, being present at extraction?	As per first question, I prefer the way it was previously worded, but the intent is appropriate.
Do you have any comments of a general nature?	

17. Collieries Staff and Officials Association (APESMA Collieries Staff Division)

Name	Samantha Trimby
Email	
Street address	Level 1, 491 Kent Street, Sydney, NSW, 2000
Postal address (if different)	As above.
Are you an individual representing an organisation	Yes
If you are representing an organisation, please name it	Collieries' Staff and Officials Association (APESMA Collieries Staff Division).
<p>Privacy – please tick if appropriate</p> <p><input checked="" type="checkbox"/> I consent to my submission being published in full</p> <p><input type="checkbox"/> I consent to my submission being published excluding personal information</p> <p><input type="checkbox"/> I do not want my submission published on the NSW Resources Regulator website</p>	
<p>DO YOU HAVE ANY COMMENTS ON THE QUESTIONS BELOW?</p>	
Are the proposed changes to experience requirements adequate?	<p>The specific experience change for extraction requirements will limit the Mechanical and Electrical Engineering Manager positions to trades based engineering staff and limit the possibilities for university qualified engineers filling this position.</p> <p>The proposed changes will mandate that the qualifying underground experience for Engineers must be as a mine worker for 12 months, not as a tradesperson for 12 months, which would be the logical path for a MEM. The qualifying underground experience should be expanded to include experience as a tradesperson underground for 12 months, as an alternative to experience as a mineworker for 12 months.</p>
Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?	Yes.

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<p>Are the recommended experience activities appropriate, specifically, being present at extraction?</p>	<p>As explained in 1 above, the experience for an MEM and EEM should be expanded to include 12 months experience as a tradesperson underground, as an alternative to 12 months experience as a mineworker.</p>
<p>Do you have any comments of a general nature?</p>	<p>There needs to be consistency between Queensland and New South Wales with regards to the examinations that are required to obtain the statutory qualifications.</p>

18. NSW Minerals Council



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C of C experience prerequisite changes submissions
NSW Department of Planning Industry and Environment
NSW Resources Regulator – Regulation Development Unit
PO Box 344 Hunter Regional Mail Centre 2310 NSW

By email: rr.feedback@planning.nsw.gov.au

2 August 2019

Discussion Paper - Proposed Changes to Experience Requirements for Statutory Function Certificates of Competence

Dear Resources Regulator

The NSW Minerals Council (NSWMC) appreciates the opportunity to provide comment on the *Discussion Paper - Proposed Changes to Experience Requirements for Statutory Function Certificates of Competence* (Discussion Paper). The industry acknowledges the importance of those holding statutory function certificates of competence having the right knowledge, experience and qualifications in order to perform their roles effectively.

However, considering the interaction of the proposed experience requirements for statutory function certificates of competence with what is involved in undertaking tertiary education, industry questions the need for a process which in effect requires 10 year plus of study before a Mining Engineering Manager certificate of competence can be obtained. There are concerns that this will act as a deterrent to candidates and limit the already low number of people available to fulfil statutory functions. This concern will only grow in light of the fact that the vast majority of Mining Engineering Manager certificate of competence holders are over 50 and it will be increasingly important to ensure a pipeline of candidates are available in succession.

Additionally, while the inclusion of supervisory experience as a prerequisite to obtaining a certificate of competence is appropriate for some roles, concerns are held around the duration of the proposed requirements and the fact that for some statutory functions the opportunities for supervisory positions are dependent on already holding the certificate of competence - thus including supervisory requirements into the experience requirements makes it impossible to obtain the certificate of competence.



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This submission makes recommendations on amendments that could be made to the proposed experience requirements to ensure they operate effectively.

Are the proposed changes to experience requirements adequate?

Industry holds concerns that the proposed experience requirements are excessive in relation to the statutory functions which in effect require tertiary education to have been completed prior.

Underground coal - Reinstatement of Part A exams

As prerequisites for the Mining Engineering Manager and Undermanager certificates of competence in underground coal mines the *Guide: Application for examinations and statutory functions certificates for 2019 Work Health and Safety (Mines and Petroleum Sites) Regulation 2014* sets out that any one of the following are required:

Underground coal mines - Mining Engineering Manager

- Bachelor of Mining Engineering issued by an Australian university, or
- RII60315 Advanced Diploma of Underground Coal Mining Management issued by a registered training organisation (the superseded qualification RII60313 Advanced Diploma of Underground Coal Mining Management, is acceptable), or
- Pass in the relevant part A examination

Underground coal mines - Undermanager

- Bachelor of Mining Engineering issued by an Australian university, or
- RII50915 Diploma of Underground Coal Mining Management issued by a registered training organisation (the superseded qualification RII50913 Diploma of Underground Coal Mining Management, is acceptable), or
- Pass in the relevant part A examination

It is understood that the Part A examinations from the Resources Regulator have not been available for some years and the absence of providers of the relevant diplomas in effect means that candidates for the Undermanager or Mining Engineering Manager statutory function will need to have a degree qualification. Pathways should be available to those that have not undertaken a degree.

Part A exams should be reinstated to allow for experienced miners who have not undertaken a university degree or diploma, with a pathway to establish that they have the prerequisite mining knowledge to attempt the Undermanager or Mining Engineering Manager examination process.



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Effectively the series of three technical assessments in the Part A exams allows a candidate to demonstrate their knowledge is equivalent to a university degree or diploma in underground coal mining management.

This would also provide an alternate option and help resolve the difficulties experienced by mining engineers who have degrees that are not accredited through the Washington Accord.

Degree qualified entrants

For a Mining Engineer who has obtained a university degree, to obtain a Mining Engineering Manager certificate of competence could potentially involve 10 + years of study and oral examinations. It is questionable whether this is appropriate when considered in comparison to other occupations. It is pivotal that there are feasible pathways for candidates who enter the industry via an operational role such as a trade or those that are degree qualified personnel.

The proposed experience requirements appear to cater for a pathway for an operator/trade person. It is pivotal to recognise that this is not the only pathway through which to become an effective certificate of competence holder.

Is the inclusion of supervision experience and the proposed length of supervision experience appropriate?

While the inclusion of supervisory experience as a prerequisite to obtaining a certificate of competence is an admirable notion and industry acknowledges it is appropriate for some roles, concerns are held around the duration of the proposed requirements and the fact that for some statutory functions the opportunities for supervisory positions are dependent on already holding the certificate of competence - thus including supervisory requirements into the experience requirements makes it impossible to obtain the certificate of competence.

Underground coal mines - Deputy Open cut coal - Open Cut Examiner

The inclusion of supervisory experience requirements is appropriate for the Undermanager and Mining Engineering Manager Statutory Functions, however, they should be removed from the Deputy and Open Cut Examiner experience requirements. It is only once a person obtains their Deputy or Open Cut Examiner certificate of competence that they are given the responsibility of supervision.



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[Underground coal mines - Electrical Engineering Manager](#) [Underground coal mines - Mechanical Engineering Manager](#) [Coal mines other than underground mines - Electrical Engineer](#)

Similar to the issues highlighted above, as mechanical activities at coal mines must be supervised by a person holding a statutory position, there are challenges for a degree educated engineer being able to get supervisory experience before obtaining their certificate of competence. See extract from the *NSW Code of practice: Mechanical engineering control plan* below. It is recommended that the supervisory experience requirements be removed.

NSW Code of practice: Mechanical engineering control plan

2.3.4. Supervision of mechanical activities at coal mines

At a coal mine, the installation, commissioning, maintenance and repair of mechanical plant must only be carried out by or under the supervision of person(s) holding the statutory position of mechanical tradesperson or under the supervision of the mechanical engineering manager (underground) or mechanical engineer (surface).

[Underground mines other than coal - Underground Supervisor](#)

Similar to the issues highlighted above, the practical realities for underground metalliferous mines can make it challenging for supervisory requirements to be attainable.

The management structure in the underground metalliferous environment is generally very flat, often having no 'supervisory' opportunities between the operator and statutory supervisor. In some very small operations the Underground Supervisor also forms part of the mining crew. There are scenarios in very small Metex operations where the most experienced operators – i.e. those most suitable to progression to supervisor (drillers, bogger operators etc) generally work autonomously and might not have the opportunity to supervise.

Prior to recent legislation changes supervisory experience was gained through being nominated as a relief supervisor and supervising in short blocks, under the scrutiny of the mine manager. This allowed progressive development of skills and assessment by management. This valuable and effective supervisor development process is no longer possible due to the current requirements.

In order for people to be able to gain supervisory experience a practicable mechanism or protocol would need to be developed by the Mining and Petroleum Competence Board to allow candidates to gain supervisory experience prior to applying for a certificate of



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competence. In the absence of such a protocol it is recommended that the supervisory prerequisite should be removed.

Underground mines other than coal - Mining Engineering Manager

There is value in the Mining Engineering Manager statutory function having supervisory experience; as it is important to understand the practical constraints of the role, as well as the daily changes and decision making required at that level. There is also benefit in being able to manage a team of workers, however, 6 months experience as an underground supervisor (with direct control over the workforce) is adequate. The minimum two years requirement of supervisory experience is excessive.

Are the recommended experience activities appropriate, specifically, being present at extraction?

It is acknowledged that understanding the extraction process and the hazards involved is important for those holding statutory functions. However being present at an extraction face for extended periods of time is not the only way in which this knowledge can be developed.

For both coal and non-coal, the Mining Engineering Manager statutory function is a varied, technical role, and time spent at the extraction face and in a supervisory position are only components of the role. In order to understand all the principal hazards, industry believes that it is of equal or greater relevance to have experience in technical design, mine design and ventilation (i.e. engineering experience more so than operator experience).

The areas that a Mining Engineering Manager needs to be competent include:

- comprehension and working knowledge of the legislation
- comprehension and understanding of the safety management system framework and the operational application of same
- holistic approach to managing risk (risk identification, principal hazard management plan/principal control plan, hierarchy of controls, communication and consultation)
- technical mine management (e.g. drill and blast, ground support, ventilation, ERT, mine design, planning and scheduling, inrush etc.)
- dealing with and responding to emergencies (external notifications, ERT processes, including external resources, coordination of technical response (i.e. ventilation, ground control etc), returning to normal operations)

Three years being present at an extraction face to support mining operations and openings is not practical nor sustainable for a mining engineer (or a business).



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Underground coal mines - Mining Engineering Manager **Underground coal mines - Undermanager** **Underground coal mines - Deputy**

There is no justification for requiring 2 or 3 years of being present at an extraction face during production to support mining operations and openings. It is recommended that the current 1 year time frame be retained.

The proposed experience requirements are not adequately considering the position of candidates that are degree qualified. In a recent example, an engineering manager has gone through a mining company's graduate program and worked from program, to coordinator, to manager over time and is presently studying for the Mining Engineering Manager certificate of competence. If the proposed experience requirements were to come into effect the candidate would not be eligible to apply unless he goes to work as a production worker. This is unnecessary and would not assist his effectiveness in being a Mining Engineering Manager. The company notes that some of its best Mining Engineering Managers were previously engineering managers.

Coal mines other than underground mines - Mining Engineering Manager **Coal mines other than underground mines - Electrical Engineer**

There is no justification for requiring 2 years of being present at an extraction face during production to support mining operations and openings. It is recommended that this be amended to a 1 year time frame.

Underground mines other than coal - Mining Engineering Manager

The Mining Engineer Manager function is different to the Underground Mine Supervisor in that it has a varied technical component, which does not come from being present at the extraction face.

It is recommended that the requirements for being present at extraction be retained the same as they currently are for Mining Engineering Managers at Underground mines other than coal mines (ie 3 months). There does not appear to be a valid argument for changing the current being present at extraction requirements. In the event the requirement was to be increased it should be to no greater than 1 year.



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Do you have any comments of a general nature?

Have we appropriately diagnosed the problem?

The proposed changes are noted to have been triggered due to the unpreparedness and lack of experience of many candidates under the current assessment requirements. Some observations from industry do not support this observation, as the following examples demonstrate.

At one company, three people sat the Open Cut Examiner exams, of which all had the required experience, but only one person passed the examination. The person who got through actually had the least experience, however, had done the appropriate preparation and had the ability to respond well when asked about certain scenarios.

In another example, two applicants for the Mechanical Engineering Manager certificate of competence had over 10 years but did not pass the exams, while graduates with 2 years experience passed.

In another example a company had 5 candidates for the Mining Engineering Manager certificate of competence, 1 of which was an engineering graduate, while the other 4 were operators. The engineering graduate was the only one to successfully pass his oral exam, despite being the one with the least experience (including being present at extraction).

These examples highlight that the testing environment may not facilitate the best performance from candidates even where they have experience and the necessary knowledge. Hence amending the experience requirements for the certificates of competence may not have an impact on success rates for passing the exams if it is not the underlying cause. Extending experience requirements is not equivalent to increasing competence.

Before changes are instigated to the certificate of competence experience requirements it is important the data is reviewed to thoroughly understand why candidates are passing or not.

The Discussion Paper refers to the candidates having a lack of competence, stating that competence is a combination of skills, knowledge and experience. It is important to explore where the issue lies. Is the issue with:

- the experience the candidate has
- the training they have received via the Registered Training Organisation (RTO) or
- the exposure to the task to obtain the skill

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Proposed changes to experience requirements for statutory function certificates of competence



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While the industry supports a robust framework to ensure that those holding statutory functions have the appropriate experience and knowledge, further work is required to understand where the deficiency lies so that any changes to the proposed experience requirements have a proper justification. NSWMC and its members would be happy to contribute to the further investigation.

Should you require further information or wish to discuss, please contact James Barben, Policy Director at the NSWMC, on 0409 526 374 or email jbarben@nswmining.com.au.

Yours sincerely

A handwritten signature in black ink, appearing to read "James Barben".

James Barben
DIRECTOR POLICY