

# **AusIMM Chartered Professional Program Regulations**

*Approved by the AusIMM Board in October 2017 for commencement on 1 January 2018*

## List of Revisions

### Amended June 2019

- Requirements for the CP (Retired) category – Section D) 10) i)
- Expanded requirements in the CP and RPEQ Qualifications tables – Guideline 2, Tables 1 & 2
- Allowance for PD Logbooks from multiple associations – additional clause in Section 45)

### Amended January 2020

- Additional clause in Section N) for Career Breaks greater than two years, covering parental leave and extended illness.

### Amended June 2020

- Expansion of the Environment, Metallurgy, and Geotechnical (Mining) disciplines to include Tailings Storage Facility specialisation.

### Amended September 2020

- Addition of Social Performance category.
- Amended requirements for RPEQ – Interviews, and PD hours in technical discipline.
- Amendments to Guideline 2 Qualification Requirements.

# AusIMM Chartered Professional Program Regulations

## Index

|   |    |
|---|----|
| Definitions.....  | 2  |
| Regulations .....   | 3  |
| A) Establishment of the AusIMM Chartered Professional Program and Chartered Professional Program Committee (CPPC) ..... | 3  |
| B) Chartered Professional Disciplines.....  | 3  |
| C) Use of post-nominals .....   | 3  |
| D) Admission as an AusIMM Chartered Professional .....  | 4  |
| E) Assessment for Registered Professional Engineers of Queensland (RPEQ).....   | 5  |
| F) Assessment Process .....   | 6  |
| G) Applications for Two Chartered Professional Disciplines .....  | 6  |
| H) Applications for Discipline Transfers.....   | 7  |
| I) Applications for an Additional Recommendation/Accreditation.....   | 7  |
| J) Applications for Specific Reinstatements.....  | 8  |
| K) Maintaining Chartered Professional status.....   | 8  |
| L) Requirements for ongoing Professional Development (PD) .....   | 8  |
| M) Recording and declaring Professional Development (PD) undertaken .....   | 8  |
| N) Career breaks.....   | 9  |
| O) Isolated work and other special circumstances.....   | 9  |
| P) Professional Development (PD) Review.....  | 10 |
| Q) Professional Development (PD) Review Process.....  | 10 |
| R) Appeals.....   | 11 |
| S) Fees and Subscriptions .....   | 11 |
| T) Cessation of Chartered Professional Accreditation.....   | 12 |
| U) Complaints and Disciplinary Action .....   | 12 |

## Guidelines

- Guideline 1 Criteria for new discipline
- Guideline 2 Qualification Requirements
- Guideline 3 Areas of Practice - All Disciplines
- Guideline 4 Sponsor requirements
- Guideline 5 Professional Development (PD) requirements

## **Chartered Professional Regulations 2018**

### ***Definitions:***

In these Regulations, unless the context otherwise requires:

- a) 'AusIMM' means the Australasian Institute of Mining and Metallurgy
- b) 'The Board' means the Board of the AusIMM, or any other governance body that in the future may be responsible for the management of the AusIMM
- c) 'CPPC' means the AusIMM Chartered Professional Program Committee
- d) 'CPP' means Chartered Professional Program
- e) 'CP' means AusIMM Chartered Professional
- f) 'PD' means Professional Development
- g) 'Registrar' means the Registrar of AusIMM's CPP, an administrative position that includes the secretarial duties of the CPPC.
- h) 'Core discipline' means one of the disciplines in which professionals can be accredited under the AusIMM CPP.
- i) 'Technical discipline' means any core discipline other than management.
- j) 'Sponsor' means a person supporting a CPP application. This person is required to provide a referee statement in support of the application. The term 'referee' may be used interchangeably here.

## ***Regulations:***

### ***A) Establishment of the AusIMM Chartered Professional Program and Chartered Professional Program Committee (CPPC)***

- 1) In accordance with AusIMM By-law clause 5, the Board establishes the Chartered Professional Program and the Chartered Professional Program Committee.
- 2) The Terms of Reference for the Chartered Professional Program Committee are approved by the Board.
- 3) The Chartered Professional Program Committee will report to the Chief Executive Officer of the AusIMM under authority delegated by the Board.
- 4) The Chartered Professional Program Committee may recommend changes to these regulations to the Board for their approval.
- 5) AusIMM Services will administer the financial transactions and accounting of the Chartered Professional Program and Chartered Professional Program Committee activities.
- 6) The Chief Executive Officer will ensure secretariat support services are available to assist in the effective operation of the Chartered Professional Program and the CPPC.

### ***B) Chartered Professional Disciplines***

- 7) The Chartered Professional Program Committee (CPPC) accredits professionals in the following core disciplines:
  - a) Environment
  - b) Geology
  - c) Management
  - d) Mining
  - e) Metallurgy
  - f) Geotechnical (Mining)
  - g) Social Performance
- 8) The CPPC may recommend new core disciplines as the need arises, based on [Guideline 1 Criteria for a new discipline](#), for approval by the Board.

### ***C) Use of post-nominals***

- 9) Once admitted to the AusIMM Chartered Professional Program, members are entitled to describe themselves as being a 'Chartered Professional of The Australasian Institute of Mining and Metallurgy' and permitted to use the post-nominal 'CP' (with an abbreviation of the CP discipline if desired) following the holder's AusIMM membership grade, as follows:
  - a) CP only:
    - i. MAusIMM(CP)
    - ii. FAusIMM(CP)
    - iii. HonFAusIMM(CP)

## Chartered Professional Regulations 2018

- b) Discipline-specific list:
  - Geology: CP(Geo)
  - Geotechnical Engineering: CP(Geotech)
  - Mining Engineering: CP(Min)
  - Metallurgy: CP(Met)
  - Environment: CP(Env)
  - Management: CP(Man)
  - Social Performance: CP(SP)
- c) Grade examples:
  - i. MAusIMM CP(Geo)
  - ii. FAusIMM CP(Man)
- d) Retired category:
  - i. MAusIMM CP(Ret)
  - ii. FAusIMM CP(Ret)

### ***D) Admission as an AusIMM Chartered Professional***

- 10) From 1 January 2018, a person shall be eligible for admission to the AusIMM Chartered Professional Program, if they meet the following eligibility requirements:
  - a) Current financial membership of AusIMM at the grade of Member, Fellow or Honorary Fellow;
  - b) An appropriate tertiary degree or equivalent relevant to the discipline in which accreditation is sought. Refer to [Guideline 2 Qualification requirements](#). Certified qualification documentation must be provided, if not previously supplied to the AusIMM;
  - c) At least five years of relevant work experience within the mining industry in at least one [Area of Practice \(Guideline 3\)](#) in the discipline being applied for, demonstrated by a detailed curriculum vitae (CV);
  - d) Demonstrated key competencies, detailed by a written response to the [Competency Statements](#) providing clear evidence the applicant has worked competently in the area of practice and in the discipline applied for a period of at least 5 years since qualification;
  - e) Nomination of three (3) sponsors who are familiar with and can substantiate the applicant's qualifications and experience. Sponsors will be asked to provide a detailed peer review to confirm the competency of the applicant. Guidelines describing who can sponsor an applicant are detailed in [Guideline 4 Sponsor requirements](#).
  - f) A minimum satisfactory level of relevant Professional Development during the three years prior to the application for CP. This must be demonstrated by a completed [AusIMM online PD logbook](#), providing evidence that in the last three years the applicant has completed 150 hours of Professional Development in compliance with [Guideline 5 Professional Development requirements](#).
  - g) A declaration that:
    - i. All the information being submitted is a true and fair representation of the applicant's recent responsibilities, qualifications and experience
    - ii. They will adhere to these Regulations, the Code of Ethics of The AusIMM and any other Code in force in The AusIMM.
    - iii. They will commit to maintain the level of Professional Development required for accreditation as outlined in [Guideline 5 Professional Development requirements](#).
  - h) Payment of the application fee.

## Chartered Professional Regulations 2018

- i) For the CP (Retired) category there will be no Application or Annual fee (other than the retirees' membership fee). Applicants must:
- be formally retired and no longer practicing,
  - remain a financial member of the AusIMM,
  - have been a CP for a period of at least 10 years, and passed all PD Reviews during that period,
  - present a compliant PD Logbook as at the date of their application to be transferred to the CP (Retired) category, or at the date of their retirement whenever that occurs,
- 
- continue engagement with AusIMM in one or more of the following ways:
    - a. becoming or continuing as a CP Assessor
    - b. acting as a mentor
    - c. making a contribution (not just attend) to AusIMM Conferences, panels, webinars, technical talks, Branches, Societies or Committees;
  - undertake at least 15 hours per year of professional development for a period of 5 years post-retirement, noting that while other PD activities (e.g. private reading, attendance at events, etc.) are available to this cohort, they do not count to the 15 hours. The focus is on contributing and giving back, not on ongoing learning. Beyond this 5-year period, the contribution of the CPs remains valued, but would no longer have a required quota.

Those CP's who have relinquished their CP status prior to the date of the introduction of the Retired category are eligible to apply.

Special provisions or assistance may be required in order for some former CP's to fulfil the compliant PD Logbook criteria where it has been some years since they relinquished their CP status.

All former CP's who meet the requirement of having been a CP for a period of at least 10 years and passed all PD Reviews during that period will be contacted by the CPPC or CP Administrator to advise them of their options.

### **E) Assessment for Registered Professional Engineers of Queensland (RPEQ)**

- 11) The AusIMM (through the CPPC) under agreement with the Board of Professional Engineers Queensland (BPEQ) may assess engineers applying for Registered Professional Engineer of Queensland (RPEQ) registration, who wish to provide Professional Engineering Services under the Professional Engineers Act 2002 (PE Act) within the mining industry in the state of Queensland. The CPPC does not have the authority to assess engineers who carry out *non-mining* professional engineering services on mine sites in Queensland.
- 12) Core disciplines in which applications can be assessed for recommendation as an RPEQ are:
  - a) Environment
  - b) Mining
  - c) Metallurgy
  - d) Geotechnical (Mining)
- 13) Following assessment and a positive recommendation by the AusIMM, the individual must apply directly to the BPEQ for registration.
- 14) Applicants may apply for RPEQ accreditation and Chartered Professional accreditation concurrently.
- 15) Registered Professional Engineers of Queensland (RPEQ) applicants must meet the same admission requirements and follow the same application process as applicants for Chartered Professional accreditation (see [Section D: Admission as an AusIMM Chartered Professional](#)), with the following exceptions:
  - a) RPEQ only applicants are *not* required to be current members of AusIMM;
  - b) RPEQ applicants must hold a four (4) year engineering degree in the discipline being

**Chartered Professional Regulations 2018**

applied for, or they must be deemed to have equivalent qualifications as per the [Guideline 2 Qualification requirements](#).

- c) RPEQ applicants must undertake a professional interview with AusIMM assessors.
- d) RPEQ applicants will pay the fee for RPEQ assessment to the AusIMM. A separate fee for RPEQ registration is payable to the BPEQ.

- 16) Those assessed as competent for a RPEQ recommendation are subject to the Chartered Professional PD requirements, as detailed in [Guideline 5 Professional Development requirements](#). The CPPC will undertake PD audits of RPEQ registered members on behalf of the BPEQ when requested.

**F) Assessment Process**

- 17) Applications will be assessed by two (2) Assessors and the outcome ratified by the CPPC.
- 18) If Assessors and the CPPC require clarification regarding any part of an application, an online interview may be arranged with the applicant.
- 19) Where the two Assessors do not agree on the outcome of a PD review, the Registrar will forward the assessment to the Chair and Deputy Chair or Immediate Past Chair of the CPPC for consideration and decision. If they cannot agree on an outcome, the assessment will be forwarded to the full CPPC for consideration and decision.
- 20) The CPPC shall have absolute discretion to:
  - a. allow or deny accreditation as an AusIMM Chartered Professional or approve an assessment for RPEQ; and
  - b. review a Chartered Professional's and RPEQ's competence and ability to meet the requirements of the program at any time.
- 21) If the CPPC is satisfied that an applicant is eligible, the applicant will be admitted to the appropriate discipline of Chartered Professional and notified accordingly.
- 22) Admitted applicants will be added to the register of Chartered Professionals.
- 23) Admitted applicants may request a certificate of AusIMM Chartered Professional accreditation.
- 24) Rejected applicants will be advised accordingly, and feedback on their application will be provided. Any rejected applicant may re-apply after 12 months from the date of rejection by submitting a new application and will be required to pay the application fee again.
- 25) The CPPC will reject an application if requested information is not supplied by the applicant or their sponsors within 90 days of the CPPC request unless extenuating circumstances exist. Applicants rejected due to incomplete applications may re-apply after 6 months from the date of rejection by submitting a new application and will be required to pay the application fee again.

**G) Applications for Two Chartered Professional Disciplines**

- 26) If an applicant wishes to apply for CP accreditation in two disciplines, two separate applications must be completed. Each will be assessed independently and applicants must demonstrate that they are fully qualified and experienced in each discipline.
- 27) The applicant must demonstrate that they have completed and agree to maintain their PD commitments for each discipline in which Chartered Professional accreditation is sought (150 hours for each discipline). The full 300 hours of PD must be demonstrated at the time of application and Logbook journal entries must specify to which discipline the hours are to be applied.
- 28) Applicants for two disciplines must supply three (3) sponsors in support of each discipline; however, one (1) sponsor may be used in both applications.
- 29) Applicants for a technical discipline and the Management discipline may use one (1) sponsor in both applications, providing five (5) sponsors in total.

## Chartered Professional Regulations 2018

- 30) Applicants for multiple Chartered Professional accreditations will be required to pay the application fee for each discipline in which Chartered Professional accreditation is sought.
- 31) Holders of multiple Chartered Professional accreditations will be required to pay the annual fees, if applicable, for each discipline in which Chartered Professional accreditation is held.

### **H) Applications for Discipline Transfers**

- 32) Where an applicant has a recorded history of assessment and currency with the Chartered Professional program and wishes to transfer to a related discipline, such as any technical discipline to Management, or Geology and Mining Engineering into Geotechnical (Mining), they are eligible to submit an abridged application.
- 33) Current CPs applying for discipline transfer from a technical discipline to Management are permitted to submit an abridged application where they supply:
  - a) one Sponsor from their current workplace who can testify to at least the most recent 12 months of employment;
  - b) a PD logbook that demonstrates 150 hours of acceptable PD;
  - c) a current CV; and
  - d) competency statements for the Management discipline.
- 34) Current CPs applying for discipline transfer to a different technical discipline are permitted to submit an abridged application where they supply:
  - a) one Sponsor from their current workplace who can testify to at least the most recent 12 months of employment;
  - b) a PD logbook that demonstrates 150 hours of acceptable PD, including at least 75 hours of technical PD related to the new discipline;
  - c) a current CV;
  - d) competency statements for the new technical discipline; and
  - e) evidence of qualifications in the new discipline.
- 35) Applicants eligible to submit an abridged application in accordance with Regulation 33 and 34 may be asked to provide further information on request.

### **I) Applications for an Additional Recommendation/Accreditation**

- 36) Where an applicant is an AusIMM Chartered Professional seeking RPEQ assessment in the same discipline; or is RPEQ recommended and seeking Chartered Professional accreditation in the same discipline, they are eligible to submit an abridged application.
- 37) For applications/assessments that were approved *within the past three (3) years*, applicants are permitted to submit an abridged application where sponsor statements and competency statements are not required, but they must supply:
  - a) a PD logbook that demonstrates 150 hours of acceptable PD; and
  - b) a current CV.
- 38) For applications/assessments that were approved *more than three (3) years ago*, applicants are permitted to submit an abridged application where sponsor statements are not required but they must supply:
  - a) a PD logbook that demonstrates 150 hours of acceptable PD ; and
  - b) a current CV; and
  - c) competency statements covering the period since RPEQ accreditation / Chartered Professional accreditation.
- 39) Applicants eligible to submit an abridged application in accordance with Regulations 37 and 38 may be asked to provide further information on request.



## Chartered Professional Regulations 2018

### **J) Applications for Specific Reinstatements**

- 40) An abridged application may be submitted where an applicant is a Chartered Professional seeking reinstatement *less than three (3) years after* their membership was suspended or resigned. In this situation an applicant may submit an application with:
- a) one (1) Sponsor from their current workplace who can testify to at least the most recent 12 months of employment (careers must have resumed for more than a year after a break of no more than two years);
  - b) a PD logbook that demonstrates 150 hours of acceptable PD as per [Guideline 5: Professional Development \(PD\) requirements](#);
  - c) a current CV; and
  - d) competency statements covering the period since registration was suspended or resigned.

### **K) Maintaining Chartered Professional status**

- 41) To retain Chartered Professional accreditation, CPs must maintain:
- a) Current financial membership of AusIMM (Member, Fellow or Honorary Fellow); and
  - b) A minimum satisfactory level of relevant Professional Development demonstrated by a completed online PD logbook as per the PD requirements specified in [Guideline 5: Professional Development \(PD\) requirements](#).

### **L) Requirements for ongoing Professional Development (PD)**

- 42) A Chartered Professional's Professional Development (PD) should focus on learning and activities in areas relevant to their technical or Management discipline *over and above* normal work related activities.
- 43) To maintain Chartered Professional (CP) accreditation, a CP must engage in a personal program of PD activities. Within each three (3) year period at least 150 hours of PD activities must be completed, averaging 50 hours per year, as per [Guideline 5: Professional Development \(PD\) requirements](#).

### **M) Recording and declaring Professional Development (PD) undertaken**

- 44) Each Chartered Professional must maintain a record of Professional Development undertaken for each discipline in which they are accredited.
- 45) Chartered Professionals must update the [AusIMM online PD Logbook](#) at minimum every three (3) months, logging any PD undertaken or entering 'nil' if no PD undertaken in that period. Reminders will be sent to CPs to complete this update, and any CP who does not comply will be flagged for a PD Review. Chartered Professionals who are members of one or more additional professional associations may record their PD activities in an alternative form of PD Logbook, provided the minimum information related to the AusIMM requirements is recorded and demonstrated.
- 46) For PD undertaken in the three years prior to 1 January 2018, Chartered Professionals must maintain a record of PD undertaken either by updating the [AusIMM online PD Logbook](#) (historical entries are retained indefinitely) or by retaining an accurate PD logbook spreadsheet.
- 47) Annually, each Chartered Professional must review their PD logbook entries and declare (via electronic declaration) that:
- their claim to PD is a true and correct record for the period of PD claimed; and
  - that the completion of at least 150 weighted hours of PD activities during the past three years has occurred.

**Chartered Professional Regulations 2018**

- 48) If a Chartered Professional is unable to make this declaration, they should resign their CP status or contact the Registrar if they believe special circumstances are present.
- 49) A Chartered Professional who provides false or misleading information about their PD compliance will have their Chartered Professional accreditation revoked and the incident will be reported to the AusIMM Complaints and Ethics Committee as a breach of the AusIMM's Code of Ethics.

**N) Career breaks**

- 50) A Chartered Professional should advise the Registrar of their intention to take a career break at the earliest opportunity, prior to the career break commencing. A career break will be recorded in the [AusIMM online PD Logbook](#).
- 51) The CPPC will not consider career breaks that are advised more than six months after the commencement of the break.
- 52) Chartered Professionals taking career breaks may maintain their CP accreditation provided their career breaks total less than two years in a three year period, and they maintain a minimum of 25 hours per year of acceptable PD during periods of career break.
- 53) The CPPC may allow differing maximum hours in categories such as *Category F: Private Reading*, where the Chartered Professional can justify the learning they undertook and why other PD categories were inaccessible to them at the time.
- 54) Extended Career Breaks under special circumstances:
- For career breaks under typical circumstances, totaling more than two years in a three-year period, CP accreditation cannot be continued. If a career break is expected to be greater than two full years in three, Chartered Professionals should contact the Registrar at the earliest opportunity to discuss their individual circumstances.
  - For Career Breaks greater than two years, when CPs are not able to undertake meaningful PD activities for extended periods (e.g. parental leave, extended illness, etc) CPs can take the first two years with no PD and then restore currency of knowledge at the end of the Career Break in accordance with the model described in the following table. This option provides for transition back to work and maintaining the credential upon return, avoiding the burden on the CP to complete 150 hours in a short space of time.

| Year                  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 |
|-----------------------|----|----|----|----|----|----|----|----|----|----|----|
| Option                |    |    |    |    |    |    |    |    |    |    |    |
| Typical Career Break  | 50 | 50 | 50 | 50 | 25 | 25 | 50 | 50 | 50 | 50 | 50 |
| Extended Career Break |    |    |    |    |    |    |    |    |    |    |    |
| 3 Years               | 50 | 50 | 50 | 50 |    |    | 25 | 25 | 50 | 50 | 50 |
| 4 Years               | 50 | 50 | 50 | 50 |    |    | 25 | 25 | 50 | 50 | 50 |
| 5 Years               | 50 | 50 | 50 | 50 |    |    | 25 | 25 | 25 | 75 | 50 |

**O) Isolated work and other special circumstances**

- 55) Chartered Professionals based or working in isolated areas, or who are experiencing other special circumstances, who believe they may not be able to meet the PD requirements (for example, due to the inability to attend technical conferences and meetings), must submit a

**Chartered Professional Regulations 2018**

statement *as soon as practical* to the Registrar, outlining their circumstances, the impact on their PD activities and suggestions for a modified PD requirement.

- 56) The CPPC will consider the Chartered Professional's request for a modified PD requirement due to these special circumstances and notify them of the outcome accordingly.
- 57) The CPPC will not consider requests for special circumstances that are advised more than six months after commencement of the special circumstances.

**P) Professional Development (PD) Review**

- 58) In addition to the annual Chartered Professional's declaration of compliance and the quarterly requirement to update the AusIMM online PD Logbook, the AusIMM will conduct random and non-random PD Reviews of Chartered Professionals (previously called PD audits).
- 59) Chartered Professionals will be called for a PD Review on average every 5 years, but not more than once every three (3) years and no less than once every eight (8) years.
- 60) Approximately 15 per cent of Chartered Professionals will be randomly selected for a PD review each year. The CPPC will determine the timing of the reviews, which will usually be completed in four batches each year.
- 61) A Chartered Professional who marginally passed their last PD Review will be automatically selected for review after three (3) years.
- 62) When called for PD Review a Chartered Professional must within one month provide the following:
  - a) Details of their recent experience and current practice in the form of a detailed and technically focused current curriculum vitae (CV) that details the member's areas of professional practice covering at least that three-year period. CVs that contain insufficient detail will not be accepted.
  - b) A record of PD activities over the immediate past three years, or a time period in the previous 3-4 years as specified by the Registrar, by ensuring information in the [AusIMM online PD Logbook](#) is up to date and any evidence relating to the entries is uploaded where possible.
  - c) Reflection on PD undertaken by completing the questions in the [AusIMM online PD Logbook](#).
  - d) Any other information that is requested by the Registrar to clarify the evidence provided, such as a summary of diary records, course/seminar enrolment records, receipts, certificates, assessment reports, employer/supervisor/peer/client reports or statutory declarations.

**Q) Professional Development (PD) Review Process**

- 63) The Registrar will notify the Chartered Professional of the PD Review, and within 30 days the CP must provide the documentation requested.
- 64) A Chartered Professional who fails to make an acceptable submission (including providing clarifying documentation) within three (3) months of being notified of a PD Review will have their accreditation suspended and their name removed from the Register of Chartered Professionals, unless an extension of time is requested, providing a reasonable explanation, as determined by the CPPC.
- 65) Once documentation is received, the Registrar will assign each PD review to two (2) Assessors, at least one of whom will be in the same discipline.
- 66) If an Assessor believes there is, or could be, a Conflict of Interest they will notify the Registrar and the PD review will be assigned to a different Assessor.
- 67) Assessors will forward their final recommendation (outcome) to the Registrar, who will compile the outcomes.

## **Chartered Professional Regulations 2018**

- 68) Where the two Assessors do not agree on the outcome of a PD review, the Registrar will forward the assessment to the Chair and Deputy Chair or Immediate Past Chair of the CPPC for consideration and decision. If they cannot agree on an outcome, the assessment will be forwarded to the full CPPC for consideration and decision.
- 69) Where non-compliance is found, the Registrar will contact the reviewee to comment on the non-compliance, including clarification of specific entries; a re-submission of the PD Logbook; and/or an interview with the reviewee to clarify the claims. The reviewee will be allowed one month to respond and the Assessors will review this new information prior to making their final recommendation to the CPPC.
- 70) The Registrar will compile the final Assessor outcomes and forward to the CPPC, who will consider the outcome for ratification.
- 71) A Chartered Professional who the CPPC determines as having failed their PD Review, will have their accreditation revoked and their name removed from the Register of Chartered Professionals. They may apply again after a period of 12 months as long as they have completed sufficient PD for their logbook to be compliant.
- 72) Quality Assurance (QA) auditing of application assessments and PD reviews will be undertaken by the CPPC on a regular basis to ensure guidelines and procedures are being followed at all times, and that decisions are repeatable and verifiable.

### ***R) Appeals***

- 73) If a failed applicant disagrees with the reasons stated for the outcome of their application or Professional Development (PD) review, they may appeal the outcome to the Chair of the CPPC. Such appeals must be lodged with the Registrar within 30 days of the date of the outcome letter, stating the grounds for the appeal.
- 74) The Registrar will attempt to resolve the appeal through the CPPC Chair/Deputy Chair, who may review the application or PD Review and refer to the full CPPC for decision, if required.
- 75) Where the Chair and Vice Chair believe that the appeal has grounds, they may order a Quality Assurance (QA) audit of the process under appeal and make a determination on the appeal from those findings.
- 76) Where an application appeal is successful, the revised outcome will be considered for ratification by the CPPC.
- 77) Where an appeal is unsuccessful, the decision of the CPPC shall be final and not subject to any further appeal. The applicant may reapply for the Chartered Professional Program 12 months after the final determination by the CPPC.
- 78) If an applicant believes the administrative procedures specified by these Regulations with regards to their admission to the Chartered Professional Program have not been followed, they may appeal the rejection of their application to the Chief Executive Officer of The AusIMM within one month of receiving the application outcome, stating which section of these Regulations have allegedly been breached.

### ***S) Fees and Subscriptions***

- 79) The CPPC may recommend, for the approval of the AusIMM Board, any fees, in addition to AusIMM membership fees, that may be payable upon application for accreditation and/or an annual subscription fee for maintaining accreditation.
- 80) Details of any prescribed fees approved by the Board, including the amount and date/s for payment, will be posted on [the AusIMM web site](#).
- 81) If prescribed, an annual subscription shall be payable each year with the membership fees, following the Chartered Professional's annual certification of their Professional Development activities.

**Chartered Professional Regulations 2018**

- 82) If a Chartered Professional has not paid the annual subscription and/or their AusIMM membership fee by the due date, the CPPC may suspend or cancel that person's Chartered Professional accreditation and remove that person's name from the Register of Chartered Professionals.

***T) Cessation of Chartered Professional Accreditation***

- 83) A Chartered Professional who ceases to be a member of the AusIMM shall cease to be a Chartered Professional and their name shall be removed from the Register of Chartered Professionals.
- 84) A Chartered Professional who fails to provide evidence of their compliance with their Professional Development obligations within three months of such evidence being requested, shall be deemed to have forfeited their Chartered Professional accreditation and shall be removed from the Register of Chartered Professionals.
- 85) A Chartered Professional who fails their Professional Development review shall be deemed to have forfeited their Chartered Professional accreditation and shall be removed from the Register of Chartered Professionals.
- 86) A Chartered Professional who fails to pay the annual subscription fee and/or their annual AusIMM membership fee by 31 March of the subscription year shall be deemed to have forfeited their Chartered Professional accreditation and shall be removed from the Register of Chartered Professionals.
- 87) A person may resign their Chartered Professional accreditation by informing the Registrar in writing, whereupon they shall be removed from the Register of Chartered Professionals.
- 88) The rights and privileges of a Chartered Professional shall cease immediately upon that person's removal from the Register of Chartered Professionals.

***U) Complaints and Disciplinary Action***

- 89) Any alleged unprofessional behaviour by a Chartered Professional should be reported in accordance with the AusIMM standard complaints procedures.

## **Chartered Professional Guideline 1:**

### **Criteria for Establishing a New Chartered Professional Discipline**

1. For a new Chartered Professional discipline to be considered by the CPPC, there needs to be sufficient perceived demand and a group of content expert 'champions' to lead the proposal.
2. A minimum of three initial champions are required who can demonstrate competence in the new discipline and can lead the development of the competency framework, assessing procedure specifics, PD guidance etc.
3. A working group comprising of at least ten potential Chartered Professionals in the proposed discipline (with advanced standing) will be formed to consult over the discipline's specific requirements.
4. The working group must develop the following for consideration by the CPPC:
  - a) Marketing strategy: value proposition to recruit Chartered Professionals to this new discipline
  - b) Areas of Practice descriptors (as per Guideline 3)
  - c) Competency Statements template
5. A minimum of 30 expressions of interest (including those in the working group) must be received for a new discipline to be developed, with a view to creating a minimum critical mass of 30-40 Chartered Professionals in that discipline in the first year.
6. One of the initial champions is required to be a nominee to the CPPC, and the first 'competent' Assessor.

## Chartered Professional Guideline 2: Qualification requirements

**Table 1: Minimum Qualifications for entry to the AusIMM Chartered Professional Program**

| Discipline  | Pathway                   | Tertiary Qualifications required  | Deemed equivalent   | Deemed equivalent** (3-yr degree option)  |
|---|---------------------------|---|---|---|
| <p>All candidates for accreditation under the AusIMM Chartered Professional Program <b>shall have a minimum of 5 years of mining industry experience in the area of the discipline in which he/she seeks accreditation.</b> Those persons will usually but not exclusively be graduates of an approved tertiary course of study as outlined below and may require additional qualifications and/or experience. Those persons shall also be members of the AusIMM at the level of Member, Fellow or Honorary Fellow.</p> |                           |   |   |   |
| Environment   | Environmental Science     | 3-year degree (BSc, BEnvSc)<br><br>+ <b>EITHER</b> honours/postgraduate <b>OR</b> 5 extra years' experience   | Engineering primary degree + postgraduate qualification in Environmental field of study.  | For applicants without a relevant tertiary qualification - the environment must be the applicant's main area of technical work. The applicant must have a degree and sufficient other qualifications related to Environment to meet the criteria to allow admission to the CP Program of the AusIMM.  |
|   | Environmental Engineering | 4-year Bachelor or Master of Engineering (Environmental Engineering)  | 4-year Engineering primary degree + postgraduate qualification in Environmental field of study.                                 | 3-year degree (BSc, BEnvSc) + <b>EITHER</b> postgraduate Degree in Environmental Engineering <b>OR</b> 5 extra years' experience  |
| Social Performance  | Social Science            | 3-year degree (Bachelor of Science or Arts)<br><br>+ <b>EITHER</b> a post graduate degree with application in the minerals industry <b>OR</b> 5 extra years' experience in the minerals industry or similar natural resource sect or. | Pathway degree + postgraduate qualification in a social or humanities field of study with application in the minerals industry. | For applicants without a relevant tertiary qualification - social and/or socioeconomic interface and/or studies must be the applicant's main area of technical work. The applicant must have a degree and sufficient other qualifications (e.g. Law, International Development, Economics) related to the discipline to meet the criteria to allow admission to the CP Program of the AusIMM. |

**Chartered Professional Guideline 2:  
Qualification requirements**

|            |                           |  |   |   |
|------------|---------------------------|--|---|---|
| Geology    | Geology                   | 3-year degree (BSc, BGeol, BApGeol or similar)<br>+ <b>EITHER</b> honours/postgraduate<br><b>OR</b> 5 extra years of postgraduate experience |   |   |
| Metallurgy | Metallurgical Science     | 4-year Bachelor's degree in science or Applied Science in Metallurgy or relevant affiliated science degree                                   | 3-year Bachelor's degree in science or Applied Science in Metallurgy or relevant affiliated science degree<br>+ <b>EITHER</b> honours/postgraduate in metallurgy<br><b>OR</b> one-year postgraduate qualification in metallurgy<br><b>OR</b> 5 extra years of postgraduate experience | 3-year Bachelor's degree in science or Applied Science<br>+ <b>EITHER</b> one-year postgraduate qualification in metallurgy<br><b>OR</b> 5 extra years of postgraduate experience                           |
|            | Metallurgical Engineering | 4-year Bachelor or Master of Engineering in Metallurgy<br><b>OR</b> Chemical Engineering   | 4-year Bachelor or Master's degree in Mechanical Engineering<br>+ <b>EITHER</b> postgraduate qualification in Metallurgy<br><b>OR</b> 5 extra years of postgraduate experience  |   |
| Mining     | Mining Engineering        | 4-year Bachelor of Engineering (Mining Engineering)  | 4-year Bachelor or Master of Engineering in Civil Engineering<br>+ <b>EITHER</b> postgraduate qualification in Mining Engineering<br><br><b>OR</b> 5 extra years of postgraduate experience   | 3-year Degree in Mining Engineering<br><br>+ <b>EITHER</b> one-year postgraduate qualification in Mining Engineering<br><b>OR</b> 5 extra years' experience   |
|            | Mining Infrastructure     | 4-year Bachelor of Engineering (relevant to area of practice)  |   | 3-year Degree in Engineering (relevant to area of practice)<br><br>+ <b>EITHER</b> one-year postgraduate qualification in Engineering (relevant to area of practice)<br><b>OR</b> 5 extra years' experience |



**Chartered Professional Guideline 2:  
Qualification requirements**

|                       |                       |   |  |  |
|-----------------------|-----------------------|---|--|--|
| Management            | Management            | A relevant 4-year tertiary degree in a technical, business, legal, accounting or management discipline, that allows admission to Membership of the AusIMM |  | 3-year degree in a technical, business or management discipline<br><br>+ <b>EITHER</b> postgraduate qualification<br><b>OR</b><br>5 extra years mining sector experience |
| Geotechnical (Mining) | Geotechnical (Mining) | 4-year Bachelor of Engineering (Geotechnical Engineering)   | 4-year Bachelor of Engineering (Mining or Civil Engineering)<br>+ <b>EITHER</b> postgraduate qualification in Geotechnical Engineering<br><b>OR</b><br>5 extra years Geotechnical experience | 3-year Geology Degree (BSc, BAppSc)<br><br>+ <b>EITHER</b> postgraduate Degree in Geomechanics<br><b>OR</b><br>+ 5 extra years Geotechnical Engineering experience       |

## Chartered Professional Guideline 2: Qualification requirements

**Table 2: Minimum Qualifications for Registered Professional Engineer of Queensland (RPEQ)**

| Discipline   | Pathway                   | Tertiary Qualifications Required  | Deemed equivalent (Alternative Engineering)  | Deemed equivalent (Science) *  |
|--|---------------------------|---|--|--|
| <p>All candidates for recommendation to the Board of Professional Engineers of Queensland <b>shall have a minimum of 5 years of mining industry experience in the area of the discipline in which he/she seeks recommendation</b>. Those persons shall be graduates of an approved tertiary course of study as outlined below and may require additional qualifications and/or experience.</p> <p>Those persons need not be members of the AusIMM but must still meet the experience requirements as described; such persons must hold a recognised <b>engineering</b> degree (or acceptable alternative) relevant to the discipline in which they seek registration.</p> <p><b>* NB: Candidates in the Deemed Equivalent (Science) category will require a Stage 1 Competency assessment. Please contact the Registrar for further details.</b></p> |                           |   |  |  |
| Environment  | Environmental Engineering | 4-year Bachelor of Engineering (Environmental Engineering)                  | 4-year Engineering primary degree + postgraduate qualification in Environmental field of study + 5 extra years' experience                                 | 4-year Environmental Honours degree (BSc(Hons), BEnvSc(Hons)) + postgraduate Degree in Environmental Engineering + 5 extra years' experience |
| Metallurgy   | Metallurgical Engineering | 4-year Bachelor of Engineering in Metallurgy <b>OR</b> Chemical Engineering | 4-year Bachelor of Mechanical Engineering + 1 years' postgraduate qualification in Metallurgy + 5 extra years' experience                                  |  |
| Mining   | Mining Engineering        | 4-year Bachelor of Engineering (Mining Engineering)                         | 4-year Bachelor of Engineering in Civil Engineering + postgraduate qualification in Mining Engineering + 5 extra years' experience                         |  |
| Geotechnical (Mining)  | Geotechnical (Mining)     | 4-year Bachelor of Engineering (Geotechnical Engineering)                   | 4-year Bachelor of Engineering (Mining or Civil Engineering) + 1 years' postgraduate qualification in Geotechnical Engineering + 5 extra years' experience | 4-year Geology Honours Degree (BSc(Hons), BAppSc(Hons)) + postgraduate Degree in Geomechanics + 5 extra years' experience                    |

## **Chartered Professional Guideline 3: Areas of Practice**

### **Index**

- 1. Areas of Practice: Environment**
- 2. Areas of Practice: Geology**
- 3. Areas of Practice: Metallurgy**
- 4. Areas of Practice: Mining Engineering**
- 5. Areas of Practice: Management**
- 6. Areas of Practice: Geotechnical (Mining)**
- 7. Areas of Practice: Social Performance**

## Chartered Professional Guideline 3: Areas of Practice

### 1. Areas of Practice: Environment

An Environmental Scientist or Environmental Engineer is a professional who undertakes activities which aim to minimize environmental harm being caused by single or multiple mining or mineral processing operations.

This work can include preparation and implementation of environmental management plans; development, implementation and analysis of environmental monitoring programs; preparation and implementation of project closure and/or repurposing plans, rehabilitation and remediation programs; preparation of environmental impact assessments; and community consultation and liaison in relation to environmental matters. These professionals prepare regulatory documents from an industry as well as a government perspective, undertaking review and approval processes for regulatory documents as well as developing related policy. Research environmental scientists/engineers may be engaged in a range of disciplines which support the application of sustainable development principles for all phases of the mining life cycle.

The following 'Areas of Practice' (AoP) descriptors and listed examples of competency indicators are intended to support Environment professional development that provides a pathway and indication of AusIMM Chartered Professional (Environment) status. The 'Areas of Practice' are not all relevant everywhere, nor in their entirety to everyone in Environment roles considering Chartered Professional pathway and status. They are updated regularly in response to evolving industry needs. Some AoP's are systemic to the minerals sector, hence apply to both the Environment and Social Performance disciplines and are identified accordingly.

1. Environmental science. Collecting, interpreting and applying environmental science data relevant to exploration, mining, mineral processing and closure of operations. Competency indicators include technical understanding of:
  - 1.1. water, land, air, ecology, ecotoxicology, agronomy, geochemistry or other relevant environmental disciplines;
  - 1.2. research techniques, experimental design and data analysis;
  - 1.3. the application of environmental science to the prevention, mitigation and management of development impacts on water, land, air and ecosystems;
  - 1.4. contamination sources and impacts, and remediation methods;
  - 1.5. plant-soil-water interactions as applied to revegetation;
  - 1.6. design of biodiversity offsets; and
  - 1.7. scientific and technical report writing.
2. Environmental engineering. Designing, constructing and operating civil, mechanical or chemical engineering facilities related to environmental management of mining and mineral processing operations. Competency indicators include:
  - 2.1. design, construction and operation of water treatment and recycling plants
  - 2.2. design, construction and operation of facilities to treat contaminated soils, wastes and air emissions
  - 2.3. design, construction and operation of facilities to suppress noise and vibration
  - 2.4. understanding the waste hierarchy;
  - 2.5. preparing and implementing programs to maximize the efficiency of water use and energy use;
  - 2.6. developing and implementing programs to abate greenhouse gas emissions; and
  - 2.7. developing and implementing cleaner production methods.

### **Chartered Professional Guideline 3: Areas of Practice**

3. *Rehabilitation, remediation, closure and repurposing.* Designing and implementing programs to remediate and rehabilitate disturbed areas to achieve defined criteria and repurposing and closure objectives. Competency indicators include:
  - 3.1. knowledge of methods to characterise soil, waste rock, tailings and residues;
  - 3.2. knowledge of how material properties influence plant growth;
  - 3.3. contamination sources and impacts;
  - 3.4. design and construction of landforms, cover systems and water management structures;
  - 3.5. design and implementation of methods for remediating contaminated materials;
  - 3.6. species selection and plant establishment techniques;
  - 3.7. engaging with internal and external stakeholders;
  - 3.8. contributing to multi-disciplinary teams (environment, social, economic, engineering) to develop and evaluate post-closure and/or repurposing land use options;
  - 3.9. determining closure objectives and completion criteria for facilities, structures and rehabilitated land;
  - 3.10. preparation of closure management plans and closure/repurposing cost estimates;
  - 3.11. assessment of closure and post-closure/repurposing (residual) risks; and
  - 3.12. implementation of decommissioning, demolition, rehabilitation and repurposing projects
  
4. *Environmental impact assessment.* Collecting and interpreting data relevant to impacts on the environment resulting from exploration, development, operations and closure activities. Competency indicators include:
  - 4.1. describing the existing biophysical and socio-economic environment;
  - 4.2. designing and implementing baseline studies;
  - 4.3. describing the proposed project and associated environmental mitigation measures;
  - 4.4. predicting environmental effects under proposed operational scenarios and under abnormal conditions;
  - 4.5. preparing environmental impact assessment documentation;
  - 4.6. coordination of multi-disciplinary teams and integrating environmental impact assessments with engineering, social, economic and project feasibility studies; and
  - 4.7. designing and implementing engagement programs with affected communities and other stakeholders in relation to environmental impacts.
  
5. *Environmental monitoring.* Designing and implementing environmental monitoring programs and recording data relevant to exploration, mining and mineral processing. Competency indicators include:
  - 5.1. identification of environmental indicators;
  - 5.2. knowledge of monitoring methods and equipment;
  - 5.3. design and implementation of monitoring programs;
  - 5.4. knowledge of databases, statistical analysis and interpretation of environmental data; and
  - 5.5. presentation of technical data and preparation of monitoring reports.

### **Chartered Professional Guideline 3: Areas of Practice**

6. *Environmental planning and management.* Using environmental knowledge to minimize adverse impacts over the entire life cycle of mining and mineral processing operations. Competency indicators include:
  - 6.1. integration and coordination of environmental, engineering and financial knowledge to design and plan operations;
  - 6.2. undertaking environmental risk assessments;
  - 6.3. understanding of Geographical Information Systems;
  - 6.4. identifying, documenting and interpreting legal and organizational environmental obligations;
  - 6.5. preparation and implementation of environmental management systems, plans and procedures;
  - 6.6. undertaking environmental auditing;
  - 6.7. reviewing performance and implementing performance improvement and corrective action programs;
  - 6.8. investigation of environmental incidents; and
  - 6.9. preparation of emergency procedures.
  
7. *Stakeholder engagement relating to the environment.* Undertaking and/or participating in effective communication and engagement regarding environmental matters with affected communities and other stakeholders. Competency indicators include:
  - 7.1. knowledge of organizational structure and permitting, approval and compliance processes of environmental regulators;
  - 7.2. designing and implementing effective communication, consultation and engagement with affected communities and other stakeholders as part of regulatory approvals processes;
  - 7.3. preparing technical and non-technical environmental information for communication with affected persons, groups and the general public;
  - 7.4. understanding that different customs, norms and values of different groups influence the effectiveness of stakeholder engagement; and/or
  - 7.5. engagement with landholders, non-government organisations, special interest groups or academic institutions.
  
8. *Environmental policy and advice.* Understanding and influencing internal and external environmental policy making. Competency indicators include:
  - 8.1. formulation and implementation of environmental policies with due consideration of economic and environmental factors for business, industry associations and government;
  - 8.2. provision of strategic environmental advice; and
  - 8.3. preparation of guidelines for good environmental management and monitoring practices.

The following Areas of Practice descriptors relate to systemic requirements in the minerals sector and can apply to Environment and Social Performance (ESP) and other professional disciplines.

9. *Mining enterprise management systems.* Familiarity with enterprise governance and management systems and using these in the course of ESP work to create business value. Competency indicators include:

### **Chartered Professional Guideline 3:**

#### **Areas of Practice**

- 9.1. understanding overarching business context, needs and strategies, and positioning ESP accordingly;
  - 9.2. using risk and materiality assessments to appropriately position ESP factors in risk registers;
  - 9.3. managing ESP matters in a way that considers why and how external stakeholders interact with mining enterprises and ensures that interactions add value to them and the enterprises;
  - 9.4. positioning ESP in an organisational context, particularly within the Health, Safety and Environment, Human Resources, Finance, Operations, Risk, Internal Audit, Communication, Government and Public Relations functions.
  - 9.5. managing ESP through an enterprise's existing systems and tools, such as change management approaches, budgeting tools and lean boards;
  - 9.6. establishing ESP accountability in enterprise management frameworks and business practice;
  - 9.7. ensuring ESP compliance and performance consequences are accurately understood and appropriately factored into enterprise internal audit/assurance processes; and
  - 9.8. developing and embedding ESP metrics into business improvement, compliance and reporting.
10. *Multi-lateral and financial institutions standards.* Managing ESP matters to achieve business compliance with government and other external ESP policies, standards and guidelines. Competency indicators include working knowledge and application of:
- 10.1. context-specific jurisdictional statutory, regulatory and policy requirements;
  - 10.2. relevant United Nations (UN) and International Labour Organisation (ILO) and other declarations, such as the UN Guiding Principles on Business and Human Rights, the UN Declaration on the Rights of Indigenous Peoples and the Voluntary Principles on Security and Human Rights;
  - 10.3. International Finance Corporation (IFC) and similar Performance Standards;
  - 10.4. Equator Bank and other relevant principles, codes of conduct and good practice;
  - 10.5. Extractive Industries Transparency Initiative (EITI) and the Global Reporting Initiative (GRI);
  - 10.6. OECD Due Diligence Guidance for Responsible Business Conduct;
  - 10.7. relevant management certification standards (e.g. ISO 14001 and ISO 26000); and
  - 10.8. adequately positioning and managing ESP practice, governance and reporting to help secure financing.
11. *Sustainable Development principles.* Understanding the history of Sustainable Development (SD), evolving Sustainability expectations and how this relates to business Environment-Social-Governance (ESG) performance, metrics and reporting. Competency indicators include working knowledge and application of:
- 11.1. the economic, social, environmental and governance aspects of Sustainable Development;
  - 11.2. concepts like intergenerational equity, materiality and natural and social capital fungibility;
  - 11.3. ESP in Sustainability Standards Accounting Board approaches;
  - 11.4. sustainable supply chain assessments;
  - 11.5. extractive sector ESP alignment with the UN Sustainable Development Goals (SDGs);

### **Chartered Professional Guideline 3: Areas of Practice**

- 11.6. International Council for Mining and Metals (ICMM) 10 Principles;
  - 11.7. ICMM Sustainable Development Framework and Assurance Standard
  - 11.8. ESP factors in stock exchange sustainability indices and reporting; and
  - 11.9. ESP in annual sustainability reporting consistent with the Global Reporting Initiative (GRI).
12. Workplace and community health, safety and security. Aligning and managing ESP work within a safety-oriented culture and enterprise health, safety and security systems, including mental health considerations. Competency indicators include:
- 12.1. contributing to workplace, supply chain and community health, safety and security risk assessments;
  - 12.2. contributing to workplace, supply chain and community hazard identification and mitigation;
  - 12.3. familiarity and compliance with health, safety and security controls;
  - 12.4. effectively monitoring of ESP-related health, safety and security matters; and
  - 12.5. ability to participate in root cause analysis of ESP-related health and safety incidents.



## Chartered Professional Guideline 3: Areas of Practice

### 2. Areas of Practice: Geology

A geologist is a professional who studies, investigates or explores the earth's crust to find mineral resources (including hydrocarbons) of sufficient quantity and having sufficient content of useful metals or other commodities to warrant their extraction; or controls and monitors the geological aspects of subsequent mining and extracting operations; or determines those structural characteristics of the earth's crust that may affect the design, safety or practicability of excavations (either on the surface or underground) required for mining operations or civil engineering excavations.

The following areas of practice are offered as examples of experience that is required for registration as a Chartered Professional (Geology). Professional experience need not be limited to those listed and applications will be considered for appropriate areas of practice in addition to those listed below.

#### 1. Exploration strategy:

- 1.1. experienced in the strategic aspects of exploration, who advises on corporate philosophies, objectives and general implementation
- 1.2. usually a person with extensive experience at the exploration executive level

#### 2. Exploration planning and management:

- 2.1. advising on and/or who undertakes the planning and management of exploration programs
- 2.2. usually dealing with the 'hands-on' rather than the strategic aspects of exploration
- 2.3. detailed knowledge of drilling techniques (e.g. open hole, core, reverse circulation etc.)

#### 3. Exploration property appraisal:

Note: This category does not cover the economic valuation of exploration properties.

- 3.1. technical assessment and evaluation of exploration properties
- 3.2. a geologist with sufficiently broad and relevant experience to qualify as the author of a Technical Report, as defined in the VALMIN Code (1998) (as modified from time to time), on an exploration property

#### 4. Geochemistry:

- 4.1. planning, design, implementation and assessment of geochemical exploration programs
- 4.2. experienced in the theory of geochemistry and its application to mineral exploration

#### 5. Geophysics:

- 5.1. planning, design, implementation and assessment of geophysical exploration programs
- 5.2. experienced in the theory of geophysics and its application to mineral exploration

#### 6. Photogeology and remote sensing:

- 6.1. geological interpretation of aerial photographs and/or of satellite images
- 6.2. theoretical aspects of photogeology and remote sensing and their application to mineral exploration

#### 7. Mineral Resource/Ore Reserve estimation (including geostatistics):

- 7.1. advising on, and/or undertaking, the preparation of Mineral Resource estimates
- 7.2. a geologist who is sufficiently experienced to contribute to, or in restricted circumstances to undertake, the preparation of JORC compliant (or equivalent code compliant) Ore Reserve estimates
- 7.3. a geostatistician who specialised in Resource/Reserve estimation

### **Chartered Professional Guideline 3: Areas of Practice**

8. Mining geology/grade control:

- 8.1. advising on geological aspects of existing or planned mining operations
- 8.2. experienced in the field of mine grade control

9. Structural geology: A specialist who advises on, or who undertakes, structural geological studies related to the exploration for, and/or mining of, mineral deposits

10. Mineralogical services:

- 10.1. experienced in petrology and/or mineralogy as it relates to the exploration for, and/or mining of, mineral deposits
- 10.2. a geologist who provides petrological and/or mineralogical services including QEMSCAN/MLA techniques

11. Geochemical Analytical and Sampling Methods:

- 11.1. a geologist with knowledge of basic geochemical techniques, particularly where they apply to exploration, grade control, variability testing and sterilisation testing
- 11.2. a geologist with understanding how to take representative samples and blending/composition techniques. Examples of analytical techniques include XRF, XRD, Wet Chemistry Methods, ICP-OES, ICP-MS, AAS etc.

12. Safety, health and risk. Implementation of workplace health and safety systems that provide for:

- 12.1. hazard identification
- 12.2. risk assessment
- 12.3. implementation of controls
- 12.4. effective monitoring
- 12.5. comprehensive review.

## Chartered Professional Guideline 3: Areas of Practice

### 3. Areas of Practice: Metallurgy

A metallurgist is a professional who either investigates, plans, designs or directly controls the process of converting minerals produced by mining into primary commodities of economic value in sufficient quantity to be used in the manufacture of economic goods.

The following areas of practice are offered as examples of experience that is required for registration as a Chartered Professional (Metallurgy). Professional experience need not be limited to those listed and applications will be considered for appropriate areas of practice in addition to those listed below.

#### 1. Process investigation and test work:

- 1.1. a minimum of five years' experience of laboratory and pilot plant investigations using mineral processes
- 1.2. extensive experience in undertaking process investigation and development for mineral projects
- 1.3. experience in testing and developing new process technology

#### 2. Flow sheet development, plant design and commissioning:

- 2.1. a metallurgist who uses the results of process investigation and test work to design a flow sheet for a planned mineral development
- 2.2. a metallurgist with appropriate experience to select and size suitable equipment, and to prepare materials balances for a proposed or existing operation
- 2.3. usually a person who has had extensive practical process plant operating experience and/or extensive commissioning experience on which to base their design recommendations

#### 3. Project appraisal.

*Note: This specialisation may not include the economic valuation of existing and proposed metallurgical operations.*

- 3.1. the technical assessment and evaluation of current and proposed mineral treatment operations such as conducting Due Diligences and Independent Technical Reviews (ITRs)
- 3.2. a person with sufficiently broad and relevant experience to qualify as the author of a Technical Report, as defined in the VALMIN Code (1998) (as modified from time to time), on an exploration property includes supporting JORC Resource and Reserve statements and NI43-101 reports

#### 4. Project planning and management:

- 4.1. Extensive experience in the planning, design, implementation and commissioning of new processing plants, or in the upgrading/optimisation of existing processing plants.

#### 5. Project Studies.

- 5.1. Includes: experiences in studies such as Conceptual, Scoping, Pre-Feasibility and Feasibility, including test work evaluation, flowsheet selection, process modelling, mass and water balances, design criteria, equipment sizing and selection, development of operating and capital costs, provision of inputs for financial modelling, and technical report preparation.

#### 6. Operational management:

- 6.1. hands-on experience of plant operation and management
- 6.2. working as a mill or smelter superintendent
- 6.3. experience gained in trouble-shooting operations

### **Chartered Professional Guideline 3: Areas of Practice**

#### **7. Mineral processing:**

- 7.1. the application of mineral processing, such as, but not limited to, flotation, magnetic separation, electrical separation, gravity, sorting, classification and cyanidation in the testing laboratory, pilot plant, or production plant
- 7.2. experience may have been gained in the treatment of, but not limited to, base and precious metal ores, uranium ores, iron ores, mineral sands, alloying metal ores (manganese, chromium, tungsten, molybdenum, etc.), rare earth ores and industrial minerals such as graphite and mineral sands
- 7.3. establish and manage tailings discharge requirements including an Operation, Maintenance and Surveillance (OMS) Manual, Dam Safety Emergency Response Plan, and facilitate routine compliance inspections/audits.

#### **8. Hydrometallurgy (including electrowinning, leaching and bacterial action):**

- 8.1. the application of hydrometallurgy to mineral processing operations, in the testing laboratory, pilot plant, or production plant
- 8.2. may have chemical engineering qualifications rather than metallurgy
- 8.3. experience gained in the treatment of uranium, copper, nickel and rare earth ores, but not gold cyanidation

#### **9. Roasting, smelting and refining:**

- 9.1. experienced in pyrometallurgical or electrometallurgical aspects of mineral processing
- 9.2. experience may be in laboratory investigations plant/ process design or in operations, or in all of these

#### **10. Comminution and sizing.**

- 10.1. a metallurgist who advises on aspects of size reduction including crushing, grinding and sizing in a production plant or staged crushing, sieving, cyclosizing/laser sizing in a laboratory
- 10.2. the person may have spent most of their career working in this field of processing

#### **11. Materials handling:**

- 11.1. experience in materials handling by conveyor, elevator, chutes, pumped slurry, thickening, tailings management and storage etc.
- 11.2. qualifications may be in metallurgy or in chemical or mechanical engineering

#### **12. Coal washing. A metallurgist with experience in the test work, development, design, commissioning and/or operation of coal washeries.**

#### **13. Infrastructure management:**

- 13.1. the assessment and/or the design, construction and/or management of power and water supply facilities and/or tailings storage facilities.
- 13.2. qualifications may be in metallurgy, but may also be in other fields of engineering

#### **14. Laboratory testing methods.**

- 14.1. Includes knowledge/understanding of basic mineral processing laboratory techniques such as Work Index determination, breakage factors, locked cycle flotation testing, variability testing, leaching, effect of gangue minerals, dewatering and mineralogical techniques such as XRD and QEMSCAN/MLA for liberation and quantitative mineralogical analysis.

### **Chartered Professional Guideline 3: Areas of Practice**

#### **15. Geochemical Analytical Methods.**

15.1. Includes knowledge of basic geochemical techniques, particularly where they apply to metallurgical assays of head, tailings and concentrate samples. Examples include XRF, XRD, Wet Chemistry Methods, ICP-OES, ICP-MS, AAS etc.

#### **16. Safety, health and risk. Implementation of workplace health and safety systems that provide for:**

16.1. hazard identification (particularly in the usage of chemicals, heat, pressure and electromagnetic/electrostatic fields)

16.2. risk assessment

16.3. implementation of controls

16.4. effective monitoring

16.5. comprehensive review.

This should be undertaken with reference to appropriate codes and guidelines.

## Chartered Professional Guideline 3: Areas of Practice

### 4. Areas of Practice: Mining Engineering

A mining engineer is a professional who investigates, plans, designs or directly controls the process of extracting naturally occurring minerals containing useful commodities from the earth's crust.

The following areas of practice are offered as examples of experience that is required for registration as a Chartered Professional (Mining Engineering). Professional experience need not be limited to those listed and applications will be considered for appropriate areas of practice in addition to those listed below.

1. Coal mining open pit: Extensive experience in Coal Reserve estimation, planning, design, mining operations, scheduling, budget preparation, risk management, operations coordination and management of open pit coal mines.
2. Coal mining underground: Extensive experience in Coal Reserve estimation, planning, design, mining operations, scheduling, budget preparation, risk management, operations coordination and management of underground coal mines.
3. Coal project technical, technical auditing and technical due diligence: A well-rounded understanding of Coal Reserve estimation, planning, design, operations, scheduling, budget preparation, risk management, supporting infrastructure requirements, construction and operations coordination and management of coal mines.
4. Metalliferous mining open pit: Extensive experience in Ore Reserve estimation, planning, design, mining operations, scheduling, budget preparation, risk management, operations coordination and management of metalliferous open pit mines.
5. Metalliferous mining underground: Extensive experience in Ore Reserve estimation, planning, design, mining operations, scheduling, budget preparation, risk management, operations coordination and management of underground metalliferous mines.
6. Metalliferous project technical, technical auditing and technical due diligence: A well-rounded understanding of Ore Reserve estimation, planning, design, scheduling, budget preparation, risk management, supporting requirements, construction and operations coordination, and management of metalliferous mines.
7. Alluvial mining, dredging: A well-rounded understanding of Ore Reserve estimation, planning, design, mining operations scheduling, budget preparation, risk management, supporting infrastructure requirements, construction and operations coordination and management of alluvial mines.
8. Quarrying: A well-rounded understanding of Ore Reserve estimation, planning, design, mining operations, scheduling, budget preparation, risk management, supporting infrastructure requirements, construction and operations coordination and management of quarries.
9. Mine services: A well-rounded understanding of mining construction and operations and the required supporting infrastructure including ventilation, backfill, de-watering, haulage, utilities and maintenance to service the operations.
10. Geotechnical services: A well-rounded understanding of rock mechanics, slopes stability and water management during mining construction and mining operations, experience in assessing ground conditions and associated risks.
11. Safety, health and risk. Implementation of workplace health and safety systems that provide for:
  - 11.1. hazard identification
  - 11.2. risk assessment
  - 11.3. implementation of controls
  - 11.4. effective monitoring
  - 11.5. comprehensive review.

## Chartered Professional Guideline 3: Areas of Practice

### 5. Areas of Practice: Management

The Management general area of practice is primarily for professionals who would formerly have qualified for Chartered Professional accreditation in one of The AusIMM's technical Core Disciplines and other professionals who are members of The AusIMM (including accountants, lawyers, mineral economists, engineers, etc.), who hold management or administrative positions, where most their day- to-day activities do not involve technical considerations.

Professionals for whom management forms a substantial and separate function may seek registration in Management in addition to their technical general area of practice. However, registration in Management is not warranted where managerial functions are only incidental to practice in a core technical discipline, in which case, registration should be in that core technical discipline.

The following areas of practice are offered as examples of experience that is required for registration as a Chartered Professional (Management). Professional experience need not be limited to those listed and applications will be considered for appropriate areas of practice in addition to those listed below. Applicants must show that their professional practice includes management, leadership or consultancy in one or more of the following categories.

1. Mine and mineral property valuation. A qualified professional with at least five years of experience in each of one or more of the following fields:

- 1.1. independent expert valuations
- 1.2. feasibility studies
- 1.3. technical audits.

This specialisation would generally require similar qualifications to those acceptable for the grant of a restricted and personal financial investment advising license under the provisions of the Corporations Law.

2. Marketing and sales. A qualified professional with at least five years of experience in each of one or more of the following fields:

- 2.1. marketing studies
- 2.2. commodity studies
- 2.3. product or service sales management

3. Corporate management. A qualified professional with at least five years of experience in each of one or more of the following fields:

- 3.1. listing and due diligence studies
- 3.2. strategic planning including company acquisition and capital raisings
- 3.3. shareholder relations including investor and broker presentations
- 3.4. mineral economic studies
- 3.5. financial planning including budget preparation and supervision of financial accounts preparation
- 3.6. corporate service on company boards in an executive or non-executive capacity
- 3.7. environmental management including energy efficiency, mine-site rehabilitation and environmental regulatory compliance

4. Mine management. A qualified professional with at least five years of experience in managing a company or a department / section within a company, including:

- 4.1. operations, budgeting and cost management
- 4.2. strategic planning including Life of Asset planning

### **Chartered Professional Guideline 3: Areas of Practice**

- 4.3. human resource
- 4.4. scope of work and workflow priorities
- 5. Tenement management and government relations. A qualified professional with at least five years of experience in each of one or more of the following fields:
  - 5.1. tenement management
  - 5.2. surveying
  - 5.3. resources law
  - 5.4. native title law
  - 5.5. community relations (including indigenous owners) relations
- 6. Human resources management. A qualified professional with at least five years of experience in each of one or more of the following fields:
  - 6.1. recruitment and personnel assessment
  - 6.2. training and education
  - 6.3. personnel management
- 7. Safety, health and risk. Implementation of workplace health and safety systems that provide for:
  - 7.1. hazard identification
  - 7.2. risk assessment
  - 7.3. implementation of controls
  - 7.4. effective monitoring
  - 7.5. comprehensive review



## Chartered Professional Guideline 3: Areas of Practice

### 6. Areas of Practice: Geotechnical (Mining)

A Geotechnical (Mining) professional investigates plans, designs and monitors the process of creating fit-for-purpose mining excavations associated with the surface or underground excavation of an in-situ rock mass, or matters directly associated therewith, including the construction or excavation of in-pit or underground infrastructure, the construction of waste dumps and stockpiles, or tailings dams, and the placement of backfill.

This discipline does not include geotechnical investigation and design for the construction of civil infrastructure on a mine site, specifically including access roads and rail lines, foundations for the construction of buildings and processing facilities. The discipline also does not cover civil tunneling or civil underground storage.

#### Areas of Practice

1. The following areas of practice are offered as examples of experience that is required for registration as a Chartered Professional (Geotechnical - Mining). Professional experience need not be limited to those listed and applications will be considered for appropriate areas of practice in addition to those listed below.
2. Site characterisation:
  - 2.1. follow industry standard mapping requirements and enhance proficiency in geotechnical mapping skills with the ability to identify and focus on important aspects of the geotechnical features of the site and the excavations/structures to be developed;
  - 2.2. ability to finalise sectional interpretations for geotechnical domain definition and structural models for mine designs and tailings dam foundations;
  - 2.3. ability to integrate geotechnical data into a field work component (e.g. sections, plans, etc);
  - 2.4. plan and supervise data acquisition programs, interpret and analyse the data and report appropriately;
  - 2.5. demonstrated ability to recognise and interpret the significance of lithological units, alteration and structural in the field;
  - 2.6. ability to review, identify and design drill hole programs;
  - 2.7. ability to manage daily drilling activities and daily supervision of contractors;
  - 2.8. compile databases and reports on rock mass parameters;
  - 2.9. ability to plan, implement and manage field projects;
  - 2.10. ability to recommend or undertake appropriate rock property testing and sample selection.
3. Geotechnical analysis and design
  - 3.1. develop a model of the major geologic structures and geotechnical features of the mine or tailings dam site;
  - 3.2. determine the geotechnical properties and domains within the mine / tailings storage facility site;
  - 3.3. assess rock mass quality within geotechnical domains;
  - 3.4. demonstrate familiarity with empirical, analytical and numerical design methods;
  - 3.5. carry out numerical modelling of stress and displacement and recommend actions resulting from this investigation;
  - 3.6. understand limitations of analytical and numerical modelling tools;
  - 3.7. design instrumentation programs and interpret data from instrumentation (e.g. ground movements from displacement monitoring equipment, stress/strain change, micro-seismicity, pore pressure, etc.);

### **Chartered Professional Guideline 3: Areas of Practice**

- 3.8. prepare and maintain key regulatory documentation (ground control management plan, open pit management plan, voids management plan, etc.);
- 3.9. demonstrate an understanding of the water balance model for a tailings storage facility and design of water management infrastructure;
- 3.10. design and implement ground support standards, or site-specific ground control installations;
- 3.11. review, update, and optimise geotechnical design guidelines for mine planning requirements.

#### **4. Monitoring:**

- 4.1. ensure rock mass parameters and ground movements are captured in the mine database and in a timely manner;
- 4.2. ensure information from rock mass assessments and ground movement monitoring is interpreted in a timely manner;
- 4.3. analyse and report trends in monitoring data;
- 4.4. analyse and report data from ground support quality testing programs (e.g. grout, groundwater, shotcrete, etc);
- 4.5. analyse and report on testing of mine fill;
- 4.6. design and specify instrumentation programs for monitoring;
- 4.7. supervise installation and maintenance of monitoring equipment;
- 4.8. implement instrument reading and data collation programs;
- 4.9. monitor ground performance and make recommendations accordingly;
- 4.10. ensure systems are in place to determine the effect stress changes are having and will have on the mine environment;
- 4.11. ensure systems are in place to monitor and assess mine seismicity in a timely manner;
- 4.12. ensure collection and analysis of groundwater from mine environment (grout and fill samples) for testing;
- 4.13. monitor ground vibrations resulting from development and stope blasting.

#### **5. Mining systems:**

- 5.1. sound practical understanding of common mining methods, mining equipment capability and their interaction with the mine environment;
- 5.2. provide appropriate information to mine management on the effect current mining practices are having on localised and mine-site wide ground stability issues in a timely manner;
- 5.3. communicate with and train the workforce on geotechnical hazard awareness.

#### **6. Tailings Facilities Design and Management**

- 6.1. Investigation, planning, design, operation and monitoring of the performance of structures for the storage of tailings, or associated matters;
  - 6.1.1 planning of tailings management processes, investigation of foundations for tailings facilities and associated infrastructure, design of embankments, managing quality assurance and control of construction, design and implementation of tailings discharge processes;
  - 6.1.2 confirming achievement of required conditions, periodic raising of storages and safe closure of facilities on completion of filling;

### **Chartered Professional Guideline 3: Areas of Practice**

- 6.2. Knowledge of relevant Legislation, Guidelines and Standards;
  - 6.2.1 demonstrate a knowledge and understanding of relevant legislation leading industry practice in accordance with national and international guidelines and standards related to tailings facility design, construction, management and subsequent closure.
- 6.3. Tailings Management Process Selection:
  - 6.3.1 ability to identify and evaluate potential tailings management process options;
  - 6.3.2 ability to select the most appropriate tailings management process through an industry standard multi-criteria assessment process and risk assessment;
  - 6.3.3 ability to select an appropriate site for tailings disposal using the process determined;
  - 6.3.4 be able to competently determine the Consequence Category of the tailings storage at the chosen site, using industry guidelines;
  - 6.3.5 understand the requirements of the tailings storage at the chosen site through the lifetime of the storage including the initial development, operations, progressive raising, eventual closure and the potential long-term post-closure performance.
- 6.4. Tailings Storage Site Characterisation:
  - 6.4.1 follow industry standard mapping requirements, and enhance proficiency in geotechnical mapping skills with the ability to identify and focus on important aspects of the geotechnical features of the site and the structures to be developed;
  - 6.4.2 ability to finalise sectional interpretations for geotechnical domain definition and structural models of foundations;
  - 6.4.3 ability to integrate geotechnical data into a field work component (e.g. sections, plans, etc.);
  - 6.4.4 plan and supervise data acquisition programs, interpret and analyse the data and report appropriately;
  - 6.4.5 demonstrated ability to recognise and interpret the significance of lithological units, alteration and structure in the field;
  - 6.4.6 ability to review, identify and design drill hole programs;
  - 6.4.7 ability to manage daily drilling activities and daily supervision of contractors;
  - 6.4.8 compile databases and reports on rock mass parameters;
  - 6.4.9 ability to plan, implement and manage field projects;
  - 6.4.10 ability to recommend or undertake appropriate foundation and construction property testing and sample selection.
- 6.5. Tailings Dam Geotechnical Analysis and Design
  - 6.5.1 develop models of the major geologic structures and geotechnical features of the foundations;
  - 6.5.2 develop structural concepts for dam embankments including zoning and internal features such as filters, drainage, foundation treatment including interaction with tailings if appropriate;
  - 6.5.3 determine the geotechnical properties of the components of the design;
  - 6.5.4 demonstrate familiarity with empirical, analytical and numerical design methods for embankment dams;

### **Chartered Professional Guideline 3: Areas of Practice**

- 6.5.5 carry out numerical modelling of stress and displacement and recommend actions resulting from investigation;
  - 6.5.6 understand limitations of analytical and numerical modelling tools;
  - 6.5.7 design instrumentation for the tailing's storage including ground movement, internal pore pressure and seepage flow;
  - 6.5.8 demonstrate an understanding of the water balance model for a tailings storage facility and design water management infrastructure;
  - 6.5.9 prepare and maintain key regulatory documentation; review, update, and optimise geotechnical design guidelines for mine planning requirements.
- 6.6. Operation, Maintenance and Surveillance:
- 6.6.1 establish and manage tailings discharge operations documentation including an Operation, Maintenance and Surveillance (OMS) Manual and Dam Safety Emergency Response Plan;
  - 6.6.2 prepare tailings and water management plans for long, medium and short-term use by operators;
  - 6.6.3 prepare and manage surveillance inspections to industry standards;
  - 6.6.4 analyse and report trends in monitoring data;
  - 6.6.5 design and specify instrumentation programs;
  - 6.6.6 supervise installation and maintenance of monitoring equipment;
  - 6.6.7 be cognizant of operational processes supporting closure designs and post-closure sustainable land use.
7. Safety, health and risk. Implementation of workplace health and safety systems that provide for:
- 7.1 hazard identification;
  - 7.2 risk assessment;
  - 7.3 implementation of controls;
  - 7.4 effective monitoring;
  - 7.5 comprehensive review.

## Chartered Professional Guideline 3: Areas of Practice

### 7. Areas of Practice: Social Performance

Social Performance practitioners advise on, guide and undertake work activities that seek to minimise harm and maximise benefits from minerals sector enterprises on affected stakeholders and in doing so constructively and sustainably position minerals sector activity in its social context. Social Performance work undertaken effectively integrates across many enterprise functional areas through all stages of mineral exploration, project evaluation, construction, operations, transition to closure and post-closure. It includes the preparation and implementation of Social Performance management plans that support optimal business strategy, socioeconomic research and monitoring, community engagement, the preparation of social-related compliance and other documentation required by government and financial lenders, the development of social-related business policy and involvement in assurance activities. It can also involve a range of activities that support the application of sustainable development principles in all stages of the resource extraction cycle.

The following 'Areas of Practice' (AoP) descriptors and listed examples of competency indicators are intended to support Social Performance professional development that provides a pathway to AusIMM Chartered Professional status. The 'Areas of Practice' are not all relevant everywhere, nor in their entirety to everyone in Social Performance roles considering Chartered Professional pathway and status. They are updated regularly in response to evolving industry needs. Some AoP's are systemic to the minerals sector, hence apply to both the Environment and Social Performance disciplines and are identified accordingly.

13. Social science. Collecting and interpreting social science data relevant to natural resource exploration, development, operations and closure. Competency indicators include:
  - 13.1. being proficient in desktop and field based quantitative and qualitative social science research;
  - 13.2. knowledge of development and behavioural studies, sociology, anthropology, ethnography and archaeology;
  - 13.3. compiling socioeconomic and sociocultural knowledgebase studies, including validation approaches;
  - 13.4. understanding and using risk frameworks to determine community and social group priorities;
  - 13.5. undertaking Social Impact Assessment (regulatory and business-driven), including human rights assessment;
  - 13.6. understanding overarching gender, cultural diversity, vulnerable people and human rights considerations and taking these into account across all areas of practice;
  - 13.7. understanding data distorting effects such as 'survey fatigue' and 'observer effect';
  - 13.8. familiarity with the 'Capital' frameworks model (e.g. natural, social, human, built and financial), including transfer flows and drivers; and
  - 13.9. other social analysis frameworks relevant to natural resource extraction.
14. Community and stakeholder communication and engagement. Designing and implementing effective communication, consultation and engagement with affected communities and stakeholders.  
Competency indicators include:
  - 14.1. preparing stakeholder engagement plans;
  - 14.2. carrying out stakeholder mapping, including their interests, influence and materiality;

### **Chartered Professional Guideline 3: Areas of Practice**

- 14.3. identifying communities of direct interest within the stakeholder network;
  - 14.4. organising and undertaking engagement activities at individual, small group, medium- and large-scale levels;
  - 14.5. sustaining community and stakeholder direct feedback of views and concerns regarding existing operations and proposed projects
  - 14.6. preparing community and stakeholder communication plans including key messages; and
  - 14.7. skills in social media management.
15. *Cultural competency and training.* Understanding the customs, norms and values of different local and minority community groups. Competency indicators include:
- 15.1. knowing how and why these may differ from those of the dominant culture and how this affects how people experience the impacts of extractive activities;
  - 15.2. understanding how different world views affect social and business relationships, behaviours and political outcomes;
  - 15.3. understanding the difficulties that local, marginalised and other minority groups may experience in the face of development;
  - 15.4. demonstrating respect for ethnic, race, gender, class and authority relationships;
  - 15.5. exercising the fundamentals of active listening, dialogue and consensus communication;
  - 15.6. being able to fit local customs, values, rights, interests and norms into the context of legal and international conventions; and
  - 15.7. managing and delivering cross cultural training and induction.
16. *Indigenous and land-connected peoples.* Understanding the risks, threats and opportunities when working with land-connected and Indigenous peoples. Competency indicators include:
- 16.1. understanding the social nature of Indigenous recognition;
  - 16.2. awareness of traditional and/or legal title and claims to land, water and other natural resources;
  - 16.3. knowledge of frameworks of colonisation and national inclusion;
  - 16.4. understanding the alienation that disconnection from land and waters can cause;
  - 16.5. managing issues associated with competing claims for land, water and other resources;
  - 16.6. understanding the role of Indigenous institutions and representative organisations;
  - 16.7. understanding within Australasian context the history of minerals sector engagement with Indigenous peoples and how it has changed over time; and
  - 16.8. knowledge of relevant national and international context, standards, guidance and laws, such as Free, Prior, Informed Consent (FPIC) and the UN Declaration on the Rights of Indigenous Peoples (UNDRIP).
17. *Prevention and management of social risk and conflict.* Identifying and managing social risks, impacts and conflict. Competency indicators include:
- 17.1. being able to analyse the nature and causes of social and related business risk;

### **Chartered Professional Guideline 3: Areas of Practice**

- 17.2. identifying conflicting interests and prohibitions between/within different community groups;
  - 17.3. designing systems and action aimed at prevention, management, remediation, resolution and recompense;
  - 17.4. designing and managing community concerns, complaints and grievance procedures;
  - 17.5. participating in social incident investigation and mitigation;
  - 17.6. conversant in active listening, restorative justice, mediation, dialogue and consensus building;
  - 17.7. understanding particular issues associated with artisanal mining and how to manage them; and
  - 17.8. knowing the importance of civil interface in emergency response procedures and situations.
18. Cultural heritage management. Identifying and managing the protection of cultural heritage values, rights and interests. Competency indicators include:
- 18.1. recognising the diverse forms of tangible and intangible cultural heritage values and their interaction;
  - 18.2. understanding the roles and relationship of archaeology and anthropology in assessing different heritage values, potential impacts upon them and associated business risks;
  - 18.3. designing and implementing of cultural heritage management systems;
  - 18.4. developing cultural heritage protection approaches with the involvement of communities and stakeholders;
  - 18.5. designing mitigation procedures that avoid and minimise potential cultural heritage impacts (e.g. work clearance and chance finds procedures);
  - 18.6. integrating cultural heritage considerations, risks, protection procedures and penalties into operational practice;
  - 18.7. designing approaches and programs aimed at cultural heritage enhancement; and
  - 18.8. working with cultural heritage custodians to identify the limits of acceptable cultural change.
19. Local level agreements (LLA). Managing the negotiation and implementation of LLA in various business, land use, recreational, cultural and jurisdictional contexts, recognising that they apply across an entire enterprise with senior management accountability. Competency indicators include being able to:
- 19.1. identify formal and informal land, water and other natural resource tenure;
  - 19.2. work with relevant groups to negotiate agreement, in the form of formal contracts which impact the whole of the business, on access to these resources;
  - 19.3. design 'fit for purpose' LLA, ranging from simple memoranda of understanding to comprehensive legal agreements
  - 19.4. understand and achieve agreement on the difference between compensation and benefits;
  - 19.5. build environmental rehabilitation and post-closure options in LLA;
  - 19.6. achieve mutual accountability frameworks for management of social impacts and commitments;
  - 19.7. design and achieve institutional arrangements and governance structures for durable LLA; and
  - 19.8. set up monitoring and evaluation of LLA and contained commitments.

### **Chartered Professional Guideline 3: Areas of Practice**

20. Resettlement and population movement. Identifying and managing the risks associated with population movements arising from natural resource exploration, development and closure. Competency indicators include:
- 20.1. understanding in-migration, resettlement and/or the economic displacement of people and their livelihoods;
  - 20.2. being able to identify existing, emerging and latent socio-economic drivers of migration;
  - 20.3. knowledge of resettlement, economic displacement and in-migration mitigation approaches;
  - 20.4. the ability to align restorative mitigation with resource and asset development schedules;
  - 20.5. understanding gender, age, ethnic and other social identity considerations;
  - 20.6. preparing resettlement and economic displacement action plans (RAP); and
  - 20.7. designing RAP monitoring, evaluation and close-out criteria.
21. Local and regional development. Understanding the negative impacts and positive influence that natural resource development can have in a region and advise how to leverage this for business and affected community benefit. Competency indicators include understanding:
- 21.1. the fundamentals of local and regional economic development;
  - 21.2. economic studies, such as Economic Value Added (EVA) and Input-Output analysis;
  - 21.3. understanding the respective roles of communities, business, government, NGO's and philanthropy;
  - 21.4. mutual benefit of shared infrastructure (e.g. roads, airports and emergency services), and
  - 21.5. applying participatory and partnership approaches that necessarily involve governments, community groups and specialist agencies having different resources and skills, mutual commitments, accountability and reciprocity.
22. Management, monitoring and evaluation of social projects. Identifying, selecting and effectively managing business-supported social projects. Competency indicators include:
- 22.1. designing business strategy, cost/benefit analysis, control and assurance of social projects;
  - 22.2. building sustainable partnerships that include capacity development, respective resource inputs and value alignment;
  - 22.3. being able to monitor and evaluate social project viability, risks, progress and outcomes;
  - 22.4. designing quantitative and qualitative performance indicators (e.g. education, health and economic metrics);
  - 22.5. ensuring the involvement of affected communities and other appropriate organisations; and
  - 22.6. understanding different social project and endowment governance structures (e.g. trusts, foundations, managed funds, direct management).
23. Local employment and workforce development. In conjunction with human resources, operations functions and community representatives, designing processes for improving local employability and employment and brokering this within the business. Competency indicators include:
- 23.1. designing appropriate and effective methods for training local people to be work-ready;



### **Chartered Professional Guideline 3: Areas of Practice**

- 23.2. knowing how to identify, recruit, select and employ suitable local people;
  - 23.3. ensuring selection processes and criteria match business and community needs;
  - 23.4. reviewing performance and reporting on measures to community on a regular basis;
  - 23.5. mitigating the potential impact on family life, gender relationships and other local norms; and
  - 23.6. understanding how to expand local employment opportunities through contractor activities.
24. Local enterprise facilitation and development. In conjunction with procurement, other functions and community representatives, facilitating the development of local/regional small and medium enterprises (SME). Competency indicators include:
- 24.1. understanding approaches and methods to identify local entrepreneurs and SME opportunities;
  - 24.2. designing business processes for sourcing of local goods and services including optimal invoicing arrangements;
  - 24.3. being able to foster SME development programs, business incubators and advisory services;
  - 24.4. brokering SME development partnerships with government, civil society and other enterprises;
  - 24.5. understanding the principles of micro-financing and other SME funding models; and
  - 24.6. monitoring performance outcomes and reporting these internally and externally.

The following Areas of Practice descriptors relate to systemic requirements in the minerals sector and can apply to Environment and Social Performance (ESP) and other professional disciplines.

25. Mining enterprise management systems. Familiarity with enterprise governance and management systems and using these in the course of ESP work to create business value. Competency indicators include:
- 25.1. understanding overarching business context, needs and strategies, and positioning ESP accordingly;
  - 25.2. using risk and materiality assessments to appropriately position ESP factors in risk registers;
  - 25.3. managing ESP matters in a way that considers why and how external stakeholders interact with mining enterprises and ensures that interactions add value to them and the enterprises;
  - 25.4. positioning ESP in an organisational context, particularly within the Health, Safety and Environment (HSE, Human Resources, Finance, Operations, Risk, Internal Audit, Communication, Government and Public Relations functions.)
  - 25.5. managing ESP through an enterprise's existing systems and tools, such as change management approaches, budgeting tools and lean boards;
  - 25.6. ensuring community and stakeholder feedback is adequately recorded and understood within and across an enterprise;
  - 25.7. establishing ESP accountability in enterprise management frameworks and business practice;
  - 25.8. ensuring ESP compliance and performance consequences are accurately understood and factored in enterprise internal audit/assurance processes; and
  - 25.9. developing and embedding ESP metrics into business improvement, compliance and reporting.

### **Chartered Professional Guideline 3: Areas of Practice**

26. Multi-lateral and financial institutions standards. Managing ESP matters to achieve business compliance with government and other external ESP policies, standards and guidelines. Competency indicators include working knowledge and application of:
- 26.1. context-specific jurisdictional statutory, regulatory and policy requirements;
  - 26.2. relevant United Nations (UN) and International Labour Organisation (ILO) and other declarations, such as the UN Guiding Principles on Business and Human Rights, the UN Declaration on the Rights of Indigenous Peoples and the Voluntary Principles on Security and Human Rights;
  - 26.3. International Finance Corporation (IFC) and similar Performance Standards;
  - 26.4. Equator Bank and other relevant principles, codes of conduct and good practice;
  - 26.5. Extractive Industries Transparency Initiative (EITI) and the Global Reporting Initiative (GRI);
  - 26.6. OECD Due Diligence Guidance for Responsible Business Conduct;
  - 26.7. relevant management certification standards (e.g. ISO 14001 and ISO 26000); and
  - 26.8. adequately positioning and managing ESP practice, governance and reporting to help secure financing.
27. Sustainable Development principles. Understanding the history of Sustainable Development (SD), evolving Sustainability expectations and how this relates to business Environment-Social-Governance (ESG) performance, metrics and reporting. Competency indicators include working knowledge and application of:
- 27.1. the economic, social, environmental and governance aspects of Sustainable Development
  - 27.2. concepts like intergenerational equity, materiality and natural and social capital fungibility;
  - 27.3. ESP in Sustainability Standards Accounting Board approaches;
  - 27.4. sustainable supply chain assessments;
  - 27.5. extractive sector ESP alignment with the UN Sustainable Development Goals (SDGs);
  - 27.6. International Council for Mining and Metals (ICMM) 10 Principles;
  - 27.7. ICMM Sustainable Development Framework and Assurance Standard
  - 27.8. ESP factors in stock exchange sustainability indices and reporting; and
  - 27.9. ESP in annual sustainability reporting consistent with the Global Reporting Initiative (GRI).
28. Workplace and community health, safety and security. Aligning and managing ESP work within a safety-oriented culture and enterprise health, safety and security systems, including mental health considerations. Competency indicators include:
- 28.1. contributing to workplace, supply chain and community health, safety and security risk assessments;
  - 28.2. contributing to workplace, supply chain and community hazard identification and mitigation;
  - 28.3. familiarity and compliance with health, safety and security controls;
  - 28.4. effectively monitoring of ESP-related health, safety and security matters; and
  - 28.5. ability to participate in root cause analysis of ESP-related health and safety incidents.

#### **Chartered Professional Guideline 4: Sponsor requirements**

1. Sponsors should be familiar with and be able to substantiate the applicant's qualifications and experience. Sponsors will be asked to provide a detailed peer review to confirm the competency of the applicant.
2. Each sponsor should have worked with the applicant for a period of at least 12 months.
3. Sponsors should be AusIMM Chartered Professionals or Chartered members of other relevant organisations.

If this is not possible, sponsors should be, in order of preference: Fellows of the AusIMM, or professionals who, in the opinion of the CPPC, are of comparable standing, and who are in a position to assess the applicant's work in the discipline of accreditation which is being sought.

4. Ideally one sponsor should be a CP in the discipline being applied for.
5. Only one sponsor may be from the current employer, except where the applicant has less than eight years' experience and the majority of which has been with their current employer. In this case two sponsors can be from the same employer.
6. The other two sponsors should be:
  - 6.1. from other organisations, clients, previous employers or former employees of the current employer; and
  - 6.2. from different stages of the applicant's career, excluding the current workplace.
  - 6.3. able to assess different periods of employment, if these two sponsors are from the same organisation.

## Chartered Professional Guideline 5: Professional Development (PD) requirements



### 1. PD Requirements

- 1.1. Continuing Professional Development is important for Chartered Professionals to demonstrate currency in their discipline.
- 1.2. A Chartered Professional's Professional Development (PD) should focus on learning and activities in areas relevant to their technical or Management discipline *over and above* normal work-related activities.
- 1.3. To maintain Chartered Professional (CP) accreditation, a CP must engage in a personal program of PD activities. Within each three (3) year period at least 150 hours of PD activities must be completed, averaging 50 hours per year.
- 1.4. The 150 hours over three (3) years must include:
  - 1.4.1. For CPs in a technical discipline (not Management) a *minimum* of **75 hours** of discipline specific technical PD;
  - 1.4.2. For RPEQs in the engineering disciplines, a *minimum* of **105 hours** of discipline specific technical PD;
  - 1.4.3. PD from at least one of the PD categories in **Table 1**, noting the *maximum* allowed for certain categories.
- 1.5. Where a CP's career is transitioning towards Management and their PD no longer reflects their technical discipline, they should apply for a transfer to CP Management, rather than fail a PD Review due to a lack of technical PD.

**Chartered Professional Guideline 5:  
Professional Development (PD) requirements**



**Table 1: Professional Development (PD) Requirements**

| Category | Category Description  | Comments. See <a href="#">PD Further Detail (Appendix 6)</a> for an explanation   | Maximum permitted hours (out of 150 hours total in three years) |
|----------|---|---|---|
| <b>A</b> | <b>Formal Education:</b><br>Undertaking formal coursework relevant to the member's area of practice (postgraduate education, other coursework, programs, and certificates).   | Report actual lecture hours or equivalent research hours or online engagement hours.  | No maximum  |
| <b>B</b> | <b>External and Internal Short Courses:</b><br>Technical and commercial courses not taken for award/degree purposes   | Courses for general life skills not permitted.  | No maximum  |
| <b>C</b> | <b>Technical Conferences and Learned Society Meetings:</b><br>Including AusIMM Technical Meetings. Attending and presenting at relevant technical conferences, meetings, seminars, workshops and site visits that can be shown to add value to the member's practice. | Hours to be claimed for technical conferences and learned society meetings. Where events are <b>not</b> technically focused, only the technical learnings from these events may be claimed. 10 hours may be claimed for delivering a 1-hour technical presentation and may only be claimed once (not for repeat presentations). | No maximum  |
| <b>D</b> | <b>Publications:</b><br>Material written and published in technical journals and technical conference papers.   | May claim up to 40 hours for each technical paper or research report for conferences; up to 50 hours for papers subject to peer review for learned journals.  | No maximum  |
| <b>E</b> | <b>On-the-job Skill Enhancement:</b><br>Time spent on formal, structured and company-sponsored on-the-job training programs; personal self-education; and on-the-job research and evaluation  | Claims must demonstrate that professional skills have been developed.   | 45 hours maximum in three years                                 |
| <b>F</b> | <b>Private Reading of Learned Publications:</b><br>Relevant to the member's practice and the demonstrated use of the information gained.  | Must demonstrate relevance to the member's practice and the new or enhanced learnings   | 52.5 hours maximum in three years                               |
| <b>G</b> | <b>Structured Mentoring:</b> Being part of a structured mentoring program (as a mentor or mentee)   | Must be a structured formal program. Training/mentoring of own staff not able to be claimed.  | 30 hours maximum in three years                                 |
| <b>H</b> | <b>Service to industry:</b><br>Active participation as a member of an industry committee, panel, board or similar   | May include meeting attendance, preparation and associated work.  | 52.5 hours maximum in three years                               |
| <b>I</b> | <b>Peer reviewing:</b><br>Of technical journal, conference, lecture or course papers  | Up to 1 hour per paper.   | No maximum  |
| <b>J</b> | <b>Other Activities:</b><br>That advance CPD but do not fall into the above categories  | Must demonstrate relevance to the member's practice and the new or enhanced learnings   | No maximum  |

## Chartered Professional Guideline 5: Professional Development (PD) requirements



### 2. Further Detail on PD Requirements (Appendix 6)

#### Category A: Formal education

- 2.1. Examples of acceptable courses and continuing education are higher degree courses (part time or full time) in Science, Engineering, Metallurgy and Environmental Studies, as well as other disciplines such as Business Studies, Management, Law, Commerce, Economics, Health & Safety, Environment, etc. Include actual hours of formal lectures or equivalent hours of research or online engagement for distance/internet delivered courses.
- 2.2. For Chartered Professionals undertaking a higher degree or a graduate diploma, the coursework involved (unless previously credited) will cover the requirements for PD for a three-year rolling period. Results must indicate successful progression and be uploaded to the online PD logbook.
- 2.3. Note: Prior to 2016 these claims had a 3 x weighting for contact hours, with the intention that this was to allow for non-contact study for preparation for tutorials, assignments, reading, and preparation for exams. Chartered Professionals undertaking a PD review covering the years 2014 and 2015 may utilise this 3 x weighting for those years. This clause does not cover new applications for CP.

#### Category B: External and internal short courses

- 2.4. Examples of **acceptable** courses and continuing education are short courses (including courses delivered online) run by tertiary institutions and other accredited educational establishments or consultants, government or semi-government bodies, professional institutions and individual undergraduate or postgraduate course units/subjects.
- 2.5. Examples of **unacceptable** courses are: guidance such as general life skills (e.g. first aid courses, non-technical software, Microsoft Office products); internal management presentations (e.g. site inductions, management policies); industrial safety training (e.g. working at heights); learning new languages; and general software training without an up-skill in new techniques.
- 2.6. Note: Prior to 2016 these claims had a 3 x weighting for contact hours, with the intention that this was to allow for non-contact study for preparation for tutorials, assignments, reading, and preparation for exams. Chartered Professionals undertaking a PD review covering the years 2014 and 2015 may utilise this 3 x weighting for those years. This clause does not cover new applications for CP.

#### Category C: Technical conferences and learned society meetings, including AusIMM technical meetings

##### Attendance

- 2.7. Attendance at relevant technical presentations (including cross-disciplinary events, Health and Safety, presentations of other technical disciplines such as law and accounting) should be counted based on the hours spent in actual attendance at relevant technical sessions.
- 2.8. The Logbook must record the areas where enhanced skills learned at the conferences and meetings have been put into practice by the member as part of their professional duties.
- 2.9. Where CPs claim for attendance at non-technical conferences and events (e.g. expos and promotional conferences) they must differentiate the hours of actual learning from the total hours spent at the event up to 25 per cent of hours attended. Examples of non-technical events include commercially or promotionally focused conferences such as 'Diggers and Dealers', 'Mining Indaba', Mines and Money, Mining Club Lunches, and PDAC.

##### Preparation and presentation

- 2.10. The preparation and presentation of material for courses (conferences, seminars, technical meetings and symposia) relevant to the applicant's CP discipline will be credited at a maximum of the duration of presentation hours × 10 and claims should be proportioned in line with effort or where multiple persons generate the material. Full details of the presentation location, timing and event organiser should be included in the claim as well as a description of the presentation.

## Chartered Professional Guideline 5: Professional Development (PD) requirements



- 2.11. Presenting the same material at technical meetings and conferences multiple times should not be claimed beyond the first presentation. Presenting similar material at multiple events (e.g. conferences) must be discounted or counted under 'lectures' in category E.
- 2.12. Presentations developed for multiple uses such as sales or organisational capability presentations will not be accepted.
- 2.13. Preparation of lectures and short course material should be claimed under category E

### Category D: Publications

- 2.14. Material written and published in technical journals and technical conference papers relevant to the applicants' CP discipline may be claimed (once published and publicly available):
  - up to 40 hours for each technical paper or research report for a conference;
  - up to 50 hours for papers subject to peer review for learned journals that have academic recognition by universities.
- 2.15. Full details of the publication must be supplied (uploaded or online link provided).
- 2.16. Where publications are co-authored, each author can claim a pro-rata share of the total time in proportion with their contribution. The lead author must ascribe some time to each co-author.
- 2.17. Claims for papers that develop on previous publications should be discounted in proportion to the previous content.
- 2.18. Claims are not permitted for: papers written with similar content for multiple events, regardless of the technical content; articles written for trade journals or news items; or interviews with journalists.

### Category E: On-the-job skill enhancement

- 2.19. Acceptable examples include time spent on formal, structured and company-sponsored on-the-job training programs; personal self-education; and on-the-job research and evaluation.
- 2.20. Claims must be substantiated and there must be a demonstration that professional skills have been developed or enhanced, and that these skills can be used in the member's area of practice.
- 2.21. 15 hours annually may be claimed from acceptable activities such as:
  - undertaking a structured program of on-the-job training e.g. cadetships or graduate programs, where up to 10 per cent of the first three months of a new technical role may be claimed if justifiable and within the first 10 years of commencing that technical career.
  - initial preparation of lectures, courses and papers for on-the-job technical training programs which involves research and additional learning to create the presentation material.
  - industry involvement for those in academic positions or part-time academic lecturing for those in industry.
  - on-the-job and project evaluation of innovative or new technology, others' practices, or ideas of non-standard practice where skills are expanded.
  - original work including planning, evaluation and research, on existing operations and on new projects
  - visits to mining or minerals extraction or processing plants or sites for the purposes of enhancing the professional's knowledge or skills. Claims may only be made for hours actually spent in technical presentations or inspection of facilities. Where such visits occur as part of a professional assignment, such as a consulting brief or a due diligence assessment, the claim should be limited to that time involved in skill enhancement.



## Chartered Professional Guideline 5: Professional Development (PD) requirements



- visits to equipment vendors, testwork providers and assaying facilities where it can be shown that new and/or updated knowledge has been gained.
  - learning to use new computer programs to enhance professional skills (new learnings must be identified).
  - learning to design or use computer applications.
  - learning new codes and reporting requirements.
  - web site discussion forums.
  - review of company and project reports to gain knowledge for upgrading an existing project or planning a new project.
- 2.22. Unacceptable examples are: activities that otherwise would be included in normal job roles, including unsubstantiated blocks of time on projects or normal work (e.g. 100 hours for working on a project); and the learning of languages which may enable one to work more effectively in other geographical locations but does not increase professional skills.
- 2.23. Note: Prior to 2016 these claims had a x 0.5 multiplier. Chartered Professionals undertaking a PD review covering the years 2014 and 2015 will utilise this 0.5 x weighting for those years. This clause does not cover new applications for CP.

### Category F: Private reading of professional publications

- 2.24. Include the number of hours spent studying relevant publications with full referencing for non-conference proceedings or journal reading (seminar/conference proceedings, periodicals including The AusIMM Bulletin, and textbooks).
- 2.25. The maximum claim allowable for this classification is 17.5 hours per year
- 2.26. The PD Logbook must show the relevance of the information to the member's practice and the new or enhanced learnings.
- 2.27. Claims for the reading of non-technical publications will not be accepted. Non-acceptable publications are (but are not limited to) historical texts, general interest reading or industry news publications such as The Mining Chronicle, Longwall, Paydirt, Resources Stocks, Gold & Minerals Gazette, Mining Journal and Mining News.
- 2.28. Note: Prior to 2016 these claims had a x 0.5 multiplier. Chartered Professionals undertaking a PD review covering the years 2014 and 2015 will utilise this 0.5 x weighting for those years (and the 17.5 hours maximum per year remains in place). This clause does not cover new applications for CP.

### Category G: Structured Mentoring of professionals

- 2.29. Acceptable mentoring of professionals covers:
- being formally mentored (not supervised) in technical, professional and ethical matters.
  - mentoring and guiding other professionals in technical, professional and ethical matters to the extent that preparation and learning is required by the mentor.
- 2.30. Examples include being part of a structured and documented formal mentoring program, mentoring a professional to write a paper, or researching a topic to give advice on a specific issue.
- 2.31. Normal supervision or interaction in the workplace **cannot** be claimed.
- 2.32. Structured mentoring may be claimed up to a maximum of 10 hours per year.

### Category H: Industry engagement/Service to Industry

- 2.33. Service to the industry in the form of active participation as a member of an industry committee, panel, board or similar may be claimed up to a maximum of 17.5 hours per year.



## Chartered Professional Guideline 5: Professional Development (PD) requirements



2.34. Acceptable examples include:

- active participation as a member of relevant committees or societies (subcommittees, panels or boards)
- meeting attendance (both face-to-face and electronic), formal minute-taking, preparation and review of documents associated with the committee (examples include budget preparation for treasurers, technical program coordination for branches or societies, technical conference organisation, interviewing scholarship candidates or newsletter editing) and other activities emanating from active participation
- Simply being a member (or on the distribution list) of a committee, sub-committee society or panel is not acceptable PD.

### Category I: Peer Review

2.35. Peer reviewing of technical journals, conference, lecture or course papers.

2.36. Up to 1 hour per paper may be claimed, unless detailed justification is provided to extend this to 2 hours.

### Category J: Other activities

1.1. Any activity that potentially advances PD but does not come under any of the above classifications, may be claimed under 'other activities'.

1.2. Examples may include, but are not limited to:

- attendance at exhibitions and trade shows, to the extent that new learning as applied to current roles is clearly identified. Hours for general attendance should not be claimed.
- Specific activities or experiences that improve or refresh skill. To be accepted, the journal entry must describe how the activity or experience contributed to improving or maintaining skill/competency.