



**PROFESSIONAL ENGINEERS ASSESSMENT SCHEME FOR  
APPLICANTS SEEKING REGISTERED PROFESSIONAL  
ENGINEER QUEENSLAND [RPEQ]**

**By-Laws and Guidelines**

**July 2021**

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## Executive Summary

The standard of professionalism among engineers must be high to ensure competent practice, ethical conduct, economic benefit, environmental sustainability and most importantly the safety of the community. Therefore, a mechanism must be in place to assess and uphold the integrity of this standard.

These By-Laws outline the criteria used by Professionals Australia in the assessment of applicants seeking to achieve Registered Professional Engineer of Queensland (RPEQ) accreditation with the Board of Professional Engineers of Queensland (BPEQ).

To be successfully recommended for RPEQ accreditation, the applicant must:

1. Have completed an eligible engineering qualification covering at least one of the disciplines of engineering, the Guidelines for which are published herein.
2. Have at least five years relevant work experience in an area applicable to the discipline for which accreditation is sought. This work experience must have been gained within the last ten years. Examples of work experience per discipline are highlighted in Sections 6.1 to 6.9 of these By-Laws.
3. Have provided the details of a minimum of three Professional Referees who can verify the applicant's work experience.
4. Have undertaken a total of 50 hours continuing professional development over the past 12 months immediately prior to the lodgement of the application.
5. Have satisfied the Assessor in the professional interview and have had the Professional Referees provide adequate peer review of the applicant's professional competence.
6. Have had their assessment approved by the Assessment Committee.

Details of Professionals Australia's application and assessment process are provided in these Bylaws. The Guidelines are produced for the benefit of applicants and Assessors in guiding the application and assessment process and are subject to review and revision.

Applicants will need to submit the letter from Professionals Australia stating that they meet the accreditation requirements with their application for RPEQ to the Board of Professional Engineers of Queensland.

Professionals Australia will abide by the Standard Conditions outlined in Appendix B as a condition of being an assessment entity authorised to assess applicants seeking Registration as a Professional Engineer of Queensland.

## 1. Introduction

This scheme provides for the assessment of qualifications and competencies of engineers in one or more of the designated areas of engineering consistent with national and international standards for the recognition of professional engineers. This scheme includes procedures for the assessment of applicants to be conducted in an independent and professional manner.

Upon approval of these by-laws and Guidelines by the appropriate Queensland Minister responsible for the Board Professionals Australia will be accredited in accordance with this scheme to assess applicants seeking RPEQ registration as administered by the BPEQ.

These By-Laws outline the criteria used by Professionals Australia in the assessment of applicants seeking accreditation in the disciplines of engineering contained in the Guidelines.

These By-Laws and Guidelines are established to ensure that people who hold accreditation have achieved such status through meeting well defined criteria developed in consultation with leaders in the engineering profession and that rigour, diligence and scrutiny have been applied by Professionals Australia in granting that status. Contained in this document are:

- **By-Laws of Professionals Australia for assessment of engineers seeking registration as a RPEQ.** These provide the governance structures for the scheme, rules, eligibility criteria, regulations, and processes.
- **Guidelines.** These provide the descriptions of the various engineering disciplines for which Professionals Australia is an accredited assessment entity.
- **Appendices.**
  - **A: Professionals' Engineers Code of Ethics**
  - **B: Standard Conditions**

Any queries about the Professionals Australia assessment process should be referred to the Professionals Australia Registrar of the assessment scheme.

## **2. Responsibility of Professional Engineers Recommended for RPEQ Registration**

Engineers who are recommended for registration as a RPEQ, shall:

- Adhere to the Professionals Australia Code of Ethics and BPEQ Code of Practice.
- Undertake continuing professional development to ensure their professional knowledge in their disciplines of practice is current.
- Listen to stakeholders in order to gain an understanding of requirements and nature of problems requiring solutions.
- Devise possible engineering and/or managerial solutions to remedy frequently occurring problems encountered by society.
- Ensure solutions are fundamentally sound in terms of theory, concepts, and principles, and satisfy the requirements of stakeholders.
- Devise solutions that can easily be re-applied or modified by themselves or colleagues to solve new problems thereby saving time and money.
- Produce work that provides beneficial outcomes to society, the economy, and the environment.
- Understand the costs, limits and risks associated with proposed solutions and communicate these to appropriate stakeholders.
- Integrate relevant technical and non-technical aspects with their solutions.
- Understand the relevance of new developments applicable to their area of practice.
- Understand the relationship between their area of practice and other areas of engineering.
- Keep abreast of research in order to advance their area of practice.
- Embrace new concepts, principles and/or technologies.
- Keep up to date with standards and codes.
- Adhere to applicable government legislation and regulations.
- Develop, mentor, and educate other professionals in their area of accreditation.
- Ensure their integrity, transparency, good conduct, and trustworthiness.
- Communicate to society to increase the community's awareness of their profession.
- Act in a manner that improves the image of their profession, as perceived by the community.

### **3. By-laws**

#### **3.1 Terms and Definitions**

*Applicant* – engineer seeking assessment for recommendation for Registered Professional Engineer of Queensland (RPEQ) status

*Approved List (the)* - the internal list maintained by Professionals Australia, detailing all applicants successfully recommended for registration with a state or federally legislated scheme.

*Assessment Committee* –At least three Assessors appointed by the Professional Engineers Division Committee to administer the assessment scheme and the appellate body for any objections to the assessment scheme supported by the Professionals Australia Registrar.

*Assessor* – person appointed by the Professional Engineers Division Committee, based on their experience and qualifications and the satisfaction of procedures outlined herein, for the purpose of determining whether or not an applicant meets the requirements for successful assessment. Section 3.18 lists the training and qualification requirements of an Assessor.

*Auditor* – person/s appointed by the Assessment Committee who has been accredited as an assessor and has completed further training equipping them to undertake audits of registered engineers ensuring compliance with continuing registration requirements.

*By-Laws* – provide the governance structures for the scheme, guiding principles, rules, and regulations.

*CEng* – Chartered Engineer as awarded by the British Engineering Council.

*Conferral Date* – day, month, and year the applicant is successfully recommended for registration.

*CP* – Chartered Professional, as granted by The Australasian Institute of Mining and Metallurgy.

*CPEng* – Chartered Professional Engineer, as granted by Engineers Australia.

*Expiration Date* – day, month, and year that an individual’s recommendation for registration expires. The expiration date is three years after the Conferral Date or three years after the date the Registrar advises a renewal of registration has been granted.

*Guidelines* – outline the eligibility criteria used to assess applicants for registration in the disciplines for which Professionals Australia accredits.

*Professional Engineers Division Committee* – the governing body elected under the Association of Professional Engineers, Scientists and Managers, Australia (APESMA) rules from an electorate of the professional engineer members. APESMA is a registered organisation under the Fair Work (Registered Organisations) Act 2009, operating as Professionals Australia.

*Professional Referee* – person nominated by the applicant to support and verify their work experience claims. The Professional Referee shall be called upon by the Assessor in order to provide a verbal or written statement that supports the applicant’s work experience. Section 3.8 lists the qualification requirements of a Professional Referee.

*Professionals Australia Registrar* – staff member appointed by the Professionals Australia CEO to have responsibility for the effective administration of the accreditation processes detailed in these By-laws, The Registrar will ensure the maintenance of the Register and the approved list.

*Proposal* – applicant’s application for assessment. This shall consist of the application form; a certified copy of their Professional Engineering qualification; examples of their work experience over

the past five years (detailed curriculum vitae), names and contact details of three Professional Referees who can testify as to the applicant's work experience claims, and a record of continuing professional development activities.

*Renewal Date* – day, month, and year that current registered engineers are advised by the Professionals Australia Registrar that they need to supply details for review of continuing professional development and compliance with the By-laws and Guidelines. The Professionals Australia Registrar shall notify participants of upcoming renewal and reassessment at least three months prior to the Expiration Date.

*RPEng* – Registered Professional Engineer of Professionals Australia. This is the registration postnominal granted to Professionals Australia members on successful assessment.

*RPEQ* – Registered Professional Engineer of Queensland, as granted by the Board of Professional Engineers of Queensland.

*The Washington Accord* – is a multi-lateral agreement between bodies responsible for accreditation or recognition of tertiary-level engineering qualifications within their jurisdictions. The Accord outlines the mutual recognition, between the participating bodies, of accredited engineering degree programmes. It also establishes and benchmarks the standard for professional engineering education across those bodies.

### **3.2 Governance of the Assessment Process**

The Professional Engineers Division Committee is to oversee the assessment program with the purpose to:

1. Uphold the wellbeing of our society, economy, and environment.
2. Ensure the assessment process effectively assesses whether or not an engineer is qualified to practice independently (unsupervised) within their specific engineering discipline.
3. Ensure that the assessment and accreditation program continue to fulfil the objectives outlined herein.
4. Facilitate a high standard of professional education, work experience, professional development, and ethical conduct among Professional Engineers through the enforcement of these By-Laws.
5. Promote a high standard of national and global recognition and respect for Professional Engineers.
6. Protect the reputation of the profession of engineering by safeguarding the use of the terms "RPEng and/or Registered Professional Engineer of Professionals Australia" for only those persons holding Registered Professional Engineer of Professionals Australia accreditation.
7. Implement and maintain an approved list of engineers who have been assessed by Professionals Australia as meeting the requirements for registration under State registration schemes and maintain a Roll of Registered Professional Engineers of Professionals Australia.

8. Communicate the importance of the engineering profession and the registration of Engineers to industry, private business, government agencies and the community generally.
9. Encourage governments to institute and maintain a register of professional engineers and recognise engineers on the Roll of Registered Professional Engineers as competent to practice unsupervised.

### **3.3 Role of Professional Engineers Division Committee in the Assessment Scheme**

The Professional Engineers Division Committee shall:

1. Appoint an Assessment Committee, comprised of at least three Assessors deemed of the highest standing to oversee the assessment process and to develop and publish Guidelines for the guidance of applicants and administration of the process.
2. Appoint Assessors, based on the recommendations of the Assessment Committee, to conduct assessments of eligibility for recommendation for registration under the scheme, subject to their meeting stringent requirements for competence outlined herein.
3. Propose fees for undertaking assessment for obtaining and retaining assessment to the National Board of Professionals Australia for approval each year. The scheme shall be run on a cost-recovery basis.
4. Conduct periodic surveys of the membership, employers, and other stakeholder groups on the adequacy of Guidelines published within the By-Laws.
5. Consider, accept, or reject recommended changes to the Guidelines by the Assessment Committee.
6. Recommend changes to these By-Laws to the National Board of Professionals Australia.

All and any changes to these Professionals Australia By-laws and guidelines are subject to approval by the appropriate Queensland Minister responsible for the Board.

### **3.4 Disciplines**

The details of eligibility criteria and assessment for the disciplines of accreditation are outlined in these By-Laws and Guidelines are published by the Assessment Committee once approved by the appropriate Queensland Minister responsible for the Board.

### **3.5 Fees**

Fees are set annually and listed on the Professionals Australia website.

### 3.6 Eligibility

In order for a person to be recommended for approval of registration they must satisfy the following requirements:

1. Have completed a qualification in one of the disciplines of engineering, the Guidelines for which are published herein. The qualification must meet one of the following requirements:
  - a] Have a four-year undergraduate engineering degree, or a Master of Engineering, accredited or recognised by a body responsible for accreditation or recognition of tertiary level qualifications that is a signatory to the Washington accord 1989 or
  - b] Have an academic qualification that has been assessed by the accrediting authority for Australia under the Washington Accord 1989 to assess qualifications as equivalent.
  - c] or a previously recognised historical equivalent qualification, previously recognised by the accrediting authority for Australia under the Washington Accord 1989 to assess qualifications as equivalent.
2. Have at least five years [including four years post-graduation] relevant engineering work experience or part time experience equivalent to at least five years full time, in an area applicable to the discipline for which accreditation is sought to the extent that the applicant has the competency to work without direct supervision. This work experience must have been gained within the last ten years. Examples of work experience per discipline are highlighted in Sections 6.1 to 6.98 of these By-Laws and Guidelines.
3. Have provided at least one written reference and the details of a minimum of three Professional Referees who can verify the applicant's work experience and competencies.
4. Have undertaken a total of 50 hours continuing professional development over the twelve months immediately prior to the lodgement of the application. Examples of continuing professional development are provided in the-clause 4 and the CPD practice note.
5. Demonstrate competency - Show evidence of the knowledge and skill base, engineering application abilities, and professional skills, values, and attitudes to be able to practise independently or unsupervised.
6.
  - Deal with ethical issues
  - Practice competently
  - Develop safe and sustainable solutions
  - Identify assess and manage risks
  - Developed Engineering knowledge of standards and practices through ongoing professional development

Where assessment is sought in an engineering discipline other than in the discipline of the original engineering qualification, applicants must provide details of training undertaken and experience gained in their desired area of practice.

### **3.7 How to Apply.**

The applicant's proposal for assessment shall consist of the following documents to be provided:

1. Certified copies of documents that meet the 100-point identification check utilised by State and Federal Government agencies that verify the identity of the applicant.
2. A certified copy of your eligible engineering qualification as detailed in Section 3.6. This can be in the form of degree, testamur, or academic record. The Guidelines may contain additional requirements for specific disciplines.
3. A detailed curriculum vitae [CV] highlighting at least five years' relevant work experience relevant to the discipline for which accreditation is sought. Examples of work experience per discipline are provided in the Guidelines. The curriculum vitae must highlight the organisation name, brief summary of the service or product provided by the organisation, the job title, length of employment, brief description of the role and examples of work experience activities for each organisation for which the applicant has been employed. The work experience activities shall outline examples of the applicant's use of theories, concepts, and practices to solve real-world problems related to the discipline for which accreditation is sought. The CV shall include the name of the person[s] who can corroborate the experience claimed.
4. At least one written reference and the names, telephone numbers and email addresses of at least three Professional Referees who can testify as to the valid nature of the applicant's five years of work experience. This referee page may be the final page of the curriculum vitae. The Professional Referees are qualified to testify as to the applicant's work experience claims only if they satisfy the requirements of Section 3.8. Furthermore, applicants must ensure the Professional Referees are aware of the applicant's nomination of the referee to testify in relation to the application for assessment. Prior to submitting a proposal, applicants are advised to ensure that the nominated Professional Referees have read the applicant's curriculum vitae and are familiar with the work experience cited in the application.
5. A record of continuing professional development. A total of 50 hours must be accumulated over the 12 months immediately prior to the lodgement of the application.-An applicant may be asked to support these claims using copies of certificates from short courses and/or copies of academic transcripts from postgraduate study or other evidence to substantiate participation in continuing professional development activities. An Assessor will verify all claims made. Applicants are advised to not include original documents in their application.
6. Completed application form together with payment of the specified fee.

Certified documents provided are to be certified by authorised persons in accordance with the relevant State legislation where the documents originate.

Applicants who have documents in a language other than English must provide those documents translated in English by a translator accredited by the National Accreditation Authority for Translators and Interpreters or by a translator approved by the authority where the translation is made and recognised by the International Federation of Translators.

Documents are to be forwarded in electronic format to the Professionals Australia Registrar. If an application does not contain all of the required documentation and information outlined in this Section 3.7, the applicant shall be given up to four weeks, or longer at the discretion of the Professionals Australia Registrar, to rectify any deficiency and if not completed in that time period shall be given notification that the application has been unsuccessful in accordance with Section 3.10.

### **3.8 Professional Referee Qualifications**

Professional Referees may be either the applicant's supervisors or colleagues who are familiar with the work experience activities highlighted in the applicant's curriculum vitae and must have known the applicant for a period of at least 12 months. At least two of the Professional Referees must be able to attest to having observed the applicant's professional work in Australia or on Australian projects using Australian codes and standards. Professional Referees must satisfy one of the following requirements:

1. Registered Professional Engineer of Professionals Australia. The referee's accreditation must be in the discipline or related discipline for which the applicant is seeking accreditation.
2. CPEng, CP, RPEQ or equivalent status as outlined in Section 3.6. The referee's accreditation must be in the discipline or similar discipline to which the applicant is seeking accreditation.
3. Engineer with a Bachelor degree (or other historically or internationally recognised equivalent or higher qualification under the Washington Accord) in the discipline or similar discipline to which the applicant is seeking accreditation and has seven or more years of work experience in the discipline or similar discipline in which the applicant is seeking accreditation.

### **3.9 Successful Applicants**

Applicants shall be notified by the Professionals Australia Registrar as to whether their application is successful. Successful applicants shall be provided with a letter for submission to the BPEQ stating that they meet the requirements for registration and will be included on the Approved List as complying with assessment requirements in these By-Laws.

### **3.10 Unsuccessful Applicants**

Applicants shall be notified as to the reason(s) why their application was unsuccessful and be given the opportunity to rectify any deficiency that may be able to be rectified within such a period as advised in the notification, being no greater than 12 months, or to appeal against the decision or alternatively re-apply for accreditation after 12 months.

Appeals must be made within one calendar month of the date of notification of the applicant being unsuccessful. Appeals shall be addressed to "RPEQ Appeals" and sent to the Professionals Australia Registrar.

Appeals should detail:

1. The reason the applicant believes the Assessor's decision warrants appeal,
2. In specificity, how the applicant believes the Assessor has failed to properly apply the Bylaws and Guidelines to the consideration of their application,
3. Any additional information which could provide further information to support application.

Applicants are permitted to make one appeal per application. If unsuccessful, the applicant is encouraged to re-apply after 12 months using the procedure highlighted in Section 3.7.

### **3.11 Appeals Process**

The Appeal review process is to enable an applicant, who has had their application rejected, further consideration by the Assessment Committee who will take account of the grounds of appeal submitted by the applicant and the report of a separate assessor. The Appeal assessor shall give fair consideration to the applicant by:

- reviewing the material originally provided,
- consider the original assessment report and grounds of rejection,
- consider any new/additional material provided by the applicant,
- interview the applicant giving them the opportunity to make representations in support of their appeal,
- if considered necessary, interview any existing or new referees nominated by the applicant.

The Professionals Australia Registrar in consultation with the Chairperson or other Assessment Committee member will consider whether the appeal has merit and if so, appoint an appeal assessor.

The appeal assessor shall be qualified in the same discipline to which the applicant is seeking registration and not have considered the initial application.

If the Professionals Australia Registrar considers the appeal does not have merit, to submit the appeal details to the next out of sessions meeting of the Assessment Committee for determination.

A report from a different assessor will be prepared in regard to each appeal that is considered to have merit. The appeal assessor will make a declaration that, regarding the assessment and the applicant for the appeal, they have no bias and no actual perceived or potential conflict of interest.

In preparing a report, the appeal assessor is to speak with the appellant giving them the opportunity to elaborate on the reasons for their appeal.

The appeal assessor may interview the applicant's referees if considered necessary.

The Assessment Committee is to consider the report and determine appeals.

The Appellant is to be then notified of the appeal decision within 14 days.

### **3.12 Continuing Eligibility**

To remain on the Professionals Australia approved list as having maintained the eligibility requirements, the successfully assessed engineer is required to maintain adherence to the Code of Practice/Professionals Australia Code of Ethics, continue to practice as a professional engineer and meet the Continuing Professional Development requirements over the previous 3-year period. Assessment Recommendations for registration are valid for, and will be assessed, three years after the Conferral Date as set by the Assessment Committee.

To remain on the Professionals Australia approved list, the engineer must provide current details of employment and continuing professional development with Professionals Australia before the Expiration Date.

Engineers wishing to provide evidence of their continuing eligibility must submit a written proposal consisting of:

1. Current contact details and employment position.
2. A detailed curriculum vitae highlighting three years of work experience in the engineering discipline in which the engineer has been assessed and wishes to continue their accreditation.
3. One Professional Referee who can support the work experience claims. This referee need not be a supervisor.
4. A record of continuing professional development. A total of at least 150 hours must be accumulated over three years. Refer clause 4. An Auditor will review all claims made.

An Auditor appointed by the Professionals Australia Registrar will verify the submission and make a recommendation on the outcome to the Professionals Australia Registrar.

### **3.13 Review of Continuing Registration Compliance and Continuing Professional Development Audits**

Persons recommended for registration and who are on the Professionals Australia approved list must provide evidence of continuing eligibility no later than three months after the Expiration Date of their registration. If they fail to provide evidence within this time frame Professionals Australia will advise BPEQ.

A yearly audit will be undertaken of at least 20% of engineers on the Approved list on the basis of longest date since last audit.

Audits will be undertaken by accredited auditors, who have no bias or conflict of interest, allocated by the Professionals Australia Registrar.

Auditors shall, prior to undertaking any assessment:

- a) Disclose to the Professionals Australia Registrar if the applicant is known to them, and if so exclude themselves from the audit process for those cases.
- b) Declare to the Professionals Australia Registrar any conflict of interest in considering applications.

Auditors shall, on completion of any assessment complete a declaration, state that the assessment has been carried out in accordance with these By-Laws and

- a) they have no actual, perceived, or potential conflict of interest.
- b) they have no bias, and
- c) there are no facts or circumstances that might give rise to a reasonable apprehension that they may have a bias.

The audit is to be undertaken in an independent and professional a manner and shall include a review of documentation including CV and CPD log to ensure compliance with these By-laws and Guidelines. The audit may include an interview of the applicant and or an interview of their referee.

The auditor shall make notes of any interviews with the applicant and/or with the referees and provide a written summary stating whether they believe the applicant meets the requirements for ongoing practice and has maintained their CPD in accordance with these By-laws and guidelines.

The Audit report will be submitted to the Assessment Committee for determination.

### **3.14 Removal from Approved List**

Listing on the Approved List shall be cancelled by the Assessment Committee where the engineer:

1. Provides written notification that they wish to no longer be on the approved list.
2. Fails to provide details required in Section 3.12 within the timeline outlined in Section 3.12.
3. Does not meet the compliance requirements of the By-laws and guidelines as determined by the Assessment Committee.
4. Has been found to have engaged in unprofessional conduct through the processes detailed in Section 3.17.

The engineer shall be removed from the Approved list. If the person holds RPEng status, the person must not represent themselves as a “Registered Professional Engineer of Professionals Australia” and shall cease the use of the post-nominal RPEng and any post-nominal associated with the discipline they held accreditation for. Notification of the cancellation shall be provided by the Assessment Committee stating the reasons for cancellation as well as any further obligations of the individual.

A person who is aggrieved by the outcome of an audit or decision to remove them from the approved list may apply for a review of the decision. See clause 3.11 Appeals process.

On removal of an engineer from the Approved List, Professionals Australia shall advise the Board of Professional Engineers of Queensland within 7 days.

### **3.15 Approved List of Engineers Recommended for Registration**

Engineers who have been assessed as meeting the requirements for registration will be included on the Approved list maintained by Professionals Australia. Approved list shall include:

1. Title, first name and last name,
2. Contact details including, email address and residential/ mailing address,
3. Discipline for which they were assessed,
4. Conferral Date highlighting day, month, and year in which accreditation was approved,
5. Expiration Date highlighting the day, month, and year in which the accreditation was last recommended for approval or subsequent review as per clause 3.12.

The engineer will be notified at least 3 months prior to the expiration date of the need to be reassessed to remain on the Approved list. Failure to provide the required information or failure to meet the requirements for remaining on the Approved list as determined by the Assessment Committee will result in the person being taken off the Approved list following which the BPEQ will be notified that the person is no longer on the Professionals Australia Approved list as meeting the requirements for Registration.

### **3.16 Use of Post-Nominals**

Professionals Australia is not responsible for granting the RPEQ post-nominal. Applicants who have been recommended for registration with the BPEQ must adhere to BPEQ's policy for use of the RPEQ post-nominal.

### **3.17 Breaches and Disciplinary Action**

Any complaints of unprofessional conduct of a person currently listed on the Professionals Australia approved list as meeting the eligibility requirements for registration as a RPEQ brought to the attention of Professionals Australia shall be referred to the BPEQ. Members of Professionals Australia who hold the RPEng title shall be reported as per the Professionals Australia By-laws. Unprofessional conduct includes any behaviour that is in breach of:

1. The Professionals Engineers' Code of Ethics (Appendix A)
2. These By-Laws and guidelines
3. Any other requirements of the Assessment Committee

The Professionals Australia Registrar will review complaints and refer serious allegations of unprofessional conduct to the assessment committee. If the Assessment Committee forms a reasonable belief that the holder of the RPEQ may have behaved as outlined in the complaint it will manage an investigation into the allegations. Such an investigation will be conducted in accordance with the rules of natural justice. During the course of investigating, the Assessment Committee may seek input from independent individuals who can validate the nature of the misconduct.

The identity of individuals reporting or involved in the investigation shall be confidential.

If the outcome of the investigation finds the RPEQ holder in breach of any requirement of this section, the Assessment Committee may terminate an individual's RPEng accreditation.

If the person also holds RPEQ registration the BPEQ will be so advised.

### **3.18 Assessors**

The Assessment Committee shall recommend a panel of accredited assessors to the Professional Engineers Division Committee for consideration. Applicants considered suitable for appointment as assessors will be confirmed to the Assessment Committee for appointment.

Assessors shall satisfy all of the following requirements:

1. They hold RPEQ registration.
2. They have demonstrated extensive experience and professional knowledge in the particular discipline, typically through more than 15 years' post-graduation work experience in the engineering discipline in which they will conduct assessments.
3. They possess a full understanding of the interpretation and application of the BPEQ Code of Practice and the Professionals Australia Code of Ethics; and
4. have demonstrated through interview and provision of referees that they have the experience and expertise to undertake assessments.

To become accredited as an assessor they must successfully complete the training program developed by the Assessment Committee and comply with the annual Continuing Professional Development requirements of the Assessment Committee.

The training program shall include an online training module, performing mock assessment[s] and conducting their first assessment[s] under supervision.

### **3.19 Auditors**

The Assessment Committee shall appoint a panel of auditors.

Auditors must be accredited assessors who have undertaken additional training in the auditing of CPD and registration renewal applications.

The training program shall include an online training module, performing mock audit[s] and conducting their first audit [s] under supervision.

### **3.20 Assessments**

Assessors shall be allocated assessments by the Professionals Australia Registrar.

The assessor must be competent in the area[s] of engineering in which the applicant is being assessed and have no bias and no actual or potential conflict of interest.

Assessors shall, prior to undertaking any assessment:

- a) Disclose to the Professionals Australia Registrar if the applicant is known to them, and if so exclude themselves from any consideration of the application.
- b) Declare to the Professionals Australia Registrar any potential conflict of interest in considering applications.

Assessors shall, on completion of any assessment complete a declaration, stating that the assessment has been carried out in accordance with these By-Laws and

- a) they have no actual, perceived, or potential conflict of interest.
- b) they have no bias, and
- c) there are no facts or circumstances that might give rise to a reasonable apprehension that they have a bias.

The assessment is to be undertaken in an independent and professional a manner and shall include:

1. Review of documentation including qualifications, CV and CPD log to ensure compliance with these By-laws and Guidelines.
2. Interview of the applicant, verifying the person being interviewed is the applicant, testing the applicant's knowledge and authorship of the work examples provided and testing whether the applicant has the competencies required under this scheme.
3. Interview of the applicant's referees seeking corroboration of the work experience submitted by the applicant and the referee's assessments as to whether the applicant has the competencies, values, and attitudes to practice independently and unsupervised.

The assessor shall make notes of the interviews with the applicant and with the referees, and provide a written summary stating whether they believe the applicant meets the standards of an experienced professional engineer with the ability to practise independently and unsupervised.

### **3.21 Assessment Committee**

The Assessment Committee administers the assessment scheme under these By-Laws. The composition of the Assessment Committee shall consist of at least three Assessors appointed by the Professional Engineers Division Committee. The Assessment Committee is supported by the Professionals Australia Registrar. The Assessment Committee shall:

1. Ensure that the Guidelines as published in these By-Laws are continually updated and remain best practice against domestic and international standards.
2. Recommend suitable applicants to the PE Division for approval as Assessors subject to their meeting stringent requirements for competence outlined herein. Following approval from the PE Division the Assessment Committee can appoint new Assessors.
3. Appoint a panel of auditors from the list of approved and accredited assessors.
4. Consider and review assessment findings and recommendations of Assessors and determine applications for registration and renewal.
5. Manage consider and determine appeals against unsuccessful assessments.
6. Ensure maintenance and publishing of the Approved list, and the Australian Professional Engineers Register of professional engineers registered under the RPEng scheme.
7. Produce induction materials for Assessors and auditors and conduct testing against those induction materials with those Assessors and auditors. These materials shall include matters which relate to these By-Laws, their operation, and all relevant legislative requirements.
8. Prepare Continuing Professional Development activities to be completed by Assessors on an annual basis.
9. Prepare all materials necessary for the conduct of assessment, application, and appeal, in particular the Guidelines and Appendices to these By-Laws.
10. Ensure the quality and competence of all Assessors and auditors.
11. Provide and maintain a centralised recording mechanism for continuing professional development.
12. Ensure all applications for registration are responded to within four weeks of receipt and that all applications are assessed within eight weeks of receipt unless varied by notifying the applicant in relation to barriers to the processing of the application.
13. Undertake periodic review, at least every 12 months, of the assessment procedures and processes, materials, By-Laws, guidelines, and appendices to ensure the scheme remains efficient and effective.
14. Provide reports to the PE Division on a quarterly basis, unless otherwise advised by the PE Division on the performance of the Assessment and registration schemes. Contents of the reports will be defined by the PE Division in consultation with the Assessment Committee.

### **3.22 Professionals Australia Registrar**

The role of the Professionals Australia Registrar is to:

1. Administer the day-to-day functions of the assessment scheme.
2. Undertake an initial review of application documentation.
3. Provide information and advice to applicants.
4. Allocate applications to Assessors for assessment.
5. Monitor the progress of assessments with assessors.
6. Provide support to assessors and auditors during the assessment, appeal, and auditing processes.
7. Provide the recommendations from assessors to the Assessment Committee for review and confirmation.
8. Maintain the Approved list and the Australian Professional Engineers Register of applicants and the outcomes of assessments.
9. Communicate assessment outcomes to applicants, and where successful, issue letters for forwarding to BPEQ.
10. Administer the appeal process.
11. Provide advice to the State Authorities [BPEQ] every 12 months identifying those who have not maintained their eligibility for registration.

### **3.23 Monitoring and Improvement**

Professionals Australia will undertake the following processes for monitoring and improving the assessment processes carried out under this scheme.

- *Audit of assessments* At least 20% of assessments will be audited each year. The audits will be undertaken by the Assessment Committee supported by an accredited assessor where appropriate to determine whether assessments have been undertaken in accordance with these By-laws and guidelines and who will report their findings to the Assessment Committee. The audit of an assessment is to be undertaken by an assessor in the area of engineering of the assessment. The auditor shall make a conflict of interest and bias declaration and must not be the assessor who undertook the original assessment. Where an audit or other reviews identify that an assessment has not been undertaken in accordance with these By-Laws, BPEQ will be notified within 7 days. If a review of an assessment identifies any deficiencies in the assessment, the matter will be reported to the Assessment Committee who will determine further training, monitoring or cessation of their role as an assessor.
- *Operations review* A review of the administration of this scheme will be undertaken each year by a person not directly involved in the scheme who will submit a report to the Assessment Committee and the PE Division. The BPEQ will be advised of the outcomes of the review and any potential areas of improvement identified.
- *Report to BPEQ.* Professionals Australia will submit a report to BPEQ by the 30 March each year which includes:
  - I. outcomes of audits of persons who were registered for participation in the continuing registration requirements.
  - II. outcomes of audits of assessments undertaken.

### **3.24 Conflict between By-Laws**

Where there exists a conflict between these By-Laws and BPEQ legislation, regulation and literature, the requirements of the BPEQ will prevail.

### **3.25 Complaints**

Complaints about this assessment scheme, processes, assessments, assessors, or auditors should in the first instance be referred to the Manager responsible for overseeing the administration of the assessment and registration scheme who will refer them to the Assessment Committee for investigation and response. A report on the complaints received and the outcome of the investigations for each complaint is to be provided to the PE Division on a quarterly basis.

## 4. Continuing Professional Development [CPD]

Applicants are expected to have undertaken a breadth of Continuing Professional Development (CPD) activities. Continuing professional development may include:

- a) **Formal Postgraduate Education** – Formal postgraduate education aligned to your work which can attract an award on completion from a higher education institution. This may include individual units of postgraduate study, which may be on or off campus and can include lectures, tutorials, lab work, research, and must involve some form of assessment.
- b) **External or Employer provided training** - Education and training provided by your employer or by a provider that is not a higher education provider but that aligns with your work or profession.
- c) **Conferences, seminars, industry technical presentations** - Attendance at a conference, seminar, or technical society meeting. Can include webinars, podcasts, technical presentations normally delivered by recognised practitioners in the field.
- d) **Presentations** - presenting at a conference or meeting outside of normal employment aligned to your work and profession and can include presentation and preparation of material.
- e) **Workplace Learning/on the job training** – Workplace learning involving theories, concepts, practices, that extend your knowledge. Normal work activities using current knowledge cannot be claimed.
- f) **Published works** – Producing a published paper for a university, conference, engineering organisation relevant to the profession, can include research and preparation.
- g) **Private research/study** - Extension of your knowledge of legislation, regulations, codes, standards, practices, and processes through research at work or private study.
- [h] **Contribution to the profession** - Contribution to the profession such as acting as a mentor, being an assessor for an engineer registration scheme, being on a board or committee relating to the profession.

Please refer to Professionals Australia Continuing Professional Development Practice Notes for comprehensive notes detailing the expectations and eligibility criteria for acceptable CPD.

**Career break consideration** - In circumstances of career breaks, reduced or part-time work applicants must still provide evidence of 150 hours of professional development however, the Assessment committee is prepared to exercise discretion in regard to the limits imposed in the various categories and/or extend the period of time in gaining the 150 hours by the period of the break(s) in practice to no more than 5 years.

## **5. Definition of an Engineering Service and further information**

Engineers seeking further information regarding registration from the Board of Professional Engineers of Queensland (BPEQ) under the Professional Engineers Act 2002 (Qld) and information detailing:

- The requirements for engineers to obtain registration,
- The definition of a professional engineering service; and
- The definition of a prescriptive standard,

should refer to the Board of Professional Engineers of Queensland website.

## **6. Guidelines - Engineering Disciplines**

Descriptions of the various engineering disciplines for which Professionals Australia is an accredited assessment entity are described in clauses 6.1 to 6.8.

If an applicant is unclear as to the correct discipline, they are advised to contact the Professionals Australia Registrar who can provide additional advice, or when required, seek advice from the Assessment Committee.

### **6.1 Civil Engineering**

Much of the physical infrastructure of our modern society is provided by Civil Engineers. Civil Engineers are concerned with all types of structure including dams, bridges, pipelines, roads, towers, and buildings. They are responsible for the design and construction of all our transport systems, the design and management of our gas and water supply, sewerage systems, harbours, airports, and railways. Civil Engineers plan, design and test the structures of private and public buildings and facilities.

They are also involved in many environmental areas such as the assessment of the impact large scale projects have on the environment and the collection and treatment of sewage and industrial wastes, pollution control, environmental control and resource protection and management.

A Civil Engineer will work from an architect's drawings and consider whether the chosen materials for a particular building will be strong enough to hold a structure of that height or design. At the same time, they would also think about how the structure might affect its surroundings. It is the responsibility of the civil engineer to produce safe, economical, and environmentally-sound structures.

Civil Engineers may specialise as chief civil engineers, construction engineers, municipal engineers, structural engineers, transport engineers or water supply distribution engineers.

Civil and public health engineers may work in the private sector as consulting engineers, project managers or construction contractors or in a wide range of government departments.

## **6.2 Information, Telecommunications & Electronics [IT&E] (previously offered as Information, Technology & Telecommunications)**

Information, telecommunications, and electronics engineering deals with scientific engineering design to develop computer modelling tools, broadband capability, improve telecommunications systems, hardware and software, systems for media broadcasting and sound, and sophisticated electronics.

## **6.3 Mechanical Engineering**

Mechanical Engineering is concerned with the design, development, research, evaluation, manufacture, installation, testing, operation, maintenance and management of machines, mechanical and mechatronic systems, automated systems and robotic devices, heat transfer processes, thermodynamic and combustion systems, fluid and thermal energy systems, materials and materials handling systems, manufacturing equipment and process plant.

Mechanical Engineering is applied in industry sectors such as mining, minerals processing, chemical processing, pharmaceutical, manufacturing, oil, and gas, automotive, aviation, aerospace, bulk handling; communications; health; building; electrical power generation and distribution; water and waste, natural gas distribution, road transport, rail transport, shipping; shipbuilding, defence, agriculture, forestry, fishing, and food processing.

## **6.4 Structural Engineering**

Structural Engineering is concerned with the research, planning, design, construction, inspection, monitoring, maintenance, rehabilitation, and demolition of permanent and temporary structures, as well as structural systems and their components. It also considers the technical, economic, environmental, aesthetic, and social aspects of structures.

Structures can include building, bridges, in-ground structures, footings, frameworks, and space frames, including those for motor vehicles, space vehicles, ships, aeroplanes, and cranes. They can be composed of any structural material including composites and novel materials.

Structural engineering is a creative profession that makes a significant contribution to infrastructure, industry, as well as residential and recreational developments.

Structural engineers carry out strength calculations and prepare drawings of structures to ensure they are strong enough to avoid collapse when loaded. The most common structures dealt with are buildings and bridges, but tunnels, walls to hold back earth embankments, large tanks, and silos as well as mining structures, also form part of a structural engineer's work. Specialist areas include oil drilling platforms and associated infrastructure, shipbuilding, and aircraft design.

Structural engineers generally work in teams and look at the way a structure is to be built. They ensure buildings are strong enough to withstand natural forces and loads imposed by the nature of their use. Through research and the testing of both form and material, new solutions are developed which promote safer, more environmentally friendly buildings and structures.

Some structural engineers work in the design of structures (carrying out the strength calculations and supervising drawings), others specialise in the building of structures and some work in research.

Structural engineers commonly work with architects, builders, mechanical, electrical, and chemical engineers to ensure that all parts of the structure are safe and capable of fulfilling their intended function. They also make sure structures use appropriate materials efficiently.

## **6.5 Electrical Engineering**

Electrical Engineering is concerned with the research, design, development, manufacture, installation, operation, maintenance, and management of equipment, plant, and systems within the electrical, electronic, communication and computer systems areas.

These activities can apply to electricity generation, transmission, distribution, electrical installations in building and on industrial sites, electrical equipment manufacture, instrumentation and control systems applications in industry, communications networks, electronic plant, and equipment, and also the integration and control of computer systems.

## **6.6 Chemical Engineering**

Chemical Engineering is concerned with the ways in which raw materials are changed into useful and commercial end products. This involves the research of raw materials and their properties, design and development of equipment and the evaluation of operating processes.

These skills are combined to extract raw materials which can then be refined and manufactured to produce such things as food, petrol, plastics, paints, paper, ceramics, minerals, and metals. Often these processes are carried out at large scale plants – the safe operation of these plants is also part of chemical engineering.

Extracting raw materials without harming the environment is also a major area of work for chemical engineers. For example, new types of fuels which can be used safely to provide the energy we need, without having an adverse effect on the environment, are currently being developed and tested.

Chemical engineers are also involved in the production of pharmaceutical products as diverse as penicillin and shampoo.

Chemical engineers may work in companies involved in the production of such things as food, plastics, ceramics, pharmaceuticals, metals, and glass. Many chemical engineers also find employment in environment protection and the reclamation or clean-up of contaminated sites, or in research laboratories, chemical plants, and petroleum refineries. Other major employers of chemical engineers include manufacturers of basic iron and steel products, organic industrial chemicals, and the mining industry.

Engineers working in this field may specialise as combustion engineers, petroleum engineers, principal chemical engineers, smelting engineers, water treatment engineers or environmental engineers. There is also scope for chemical engineers to move into related areas including biotechnology, food engineering and mineral engineering.

## **6.7 Geotechnical Engineering**

Geotechnical engineers undertake the activities of site investigation, laboratory testing, supervision, data interpretation, analysis, design and monitoring for foundations, slopes, retaining structures, embankments, roadways, tunnels, levees, wharves, landfills, mines, nearshore/offshore oil and gas structures and other systems that are made of or are supported by soil or rock (DEEWR 2013, AusIMM 2013).

## **6.8 Environmental Engineering**

Environmental engineers are concerned with protecting the environment by assessing the impact a project has on the air, water, soil, and noise levels in its vicinity. This is done by studying the projects design, construction, and operation, and minimising any adverse effects that it may have on the environment.

Environmental engineers are also involved in removing problems caused by past activity, such as cleaning contaminated industrial land so it can be used for housing.

They predict what problems may be caused by accidents, such as oil spills for example, and assess what may cause problems for the environment in the long term.

They also plan and design equipment and processes for the treatment and safe disposal of waste material and direct the conservation and wise use of natural resources.

They are involved in research and development of alternative energy sources, water reclamation, waste treatment and recycling.

Environmental engineers may work with government departments or in the private sector with resource processing companies as consulting engineers.

## Appendix A: Professional Engineers' Code of Ethics

Professional Engineers' Code of Ethics demonstrates Professionals Australia members' responsibility and commitment to society and professional engineering. The Code of Ethics is not a behavioural guide or rulebook. It provides the foundations of an ethical culture, sets ethical benchmarks, and inspires society's confidence in Professionals Australia members.

Registered Professional Engineers of Professionals Australia shall:

- At all times further the standing of the engineering profession through conducting themselves with professionalism and by displaying integrity, diligence, and decency.
- Uphold the safety, health, and wellbeing of the community.
- Practice solely in their areas of competence and communicate to relevant stakeholders when the scope of work falls outside their area of competence.
- Understand the environmental impact of their engineering services and adhere to environmentally sustainable practices.
- Provide engineering services beneficial to the economy.
- Communicate honestly and clearly to their employers and clients in relation to safety, risk, cost, time, fitness for purpose, quality, reliability, environmental impact, and economic benefit.
- Put foremost the interests of public safety when there is a conflict of interest between the interests of the public and the instructions of your employer.
- Bring evidence of poor public and private decision-making to light to authorities or the public more generally when compelled by poor practice, instruction, or negligence.
- Continue professional development in their chosen areas of competence and remain informed of major changes within their industry.
- Provide mentoring and training to ensure knowledge and skills are transferred to others.
- Not behave in a manner that would damage the reputation of themselves and others.
- Report unlawful/unethical behaviour and conflicts of interest.
- Promote ethical behaviour.
- Comply with relevant Government legislation and regulations.
- Abide by the rules of disclosure and use of classified information.
- Not misuse company, public and private property.

## Appendix B: Standard Conditions

1. Professionals Australia must comply with this assessment scheme.
2. Professionals Australia will not vary the scheme unless the Minister has granted an application for variation of the scheme. Professionals Australia must only make variations to the scheme that the Minister has granted an application for variation for.
3. Professionals Australia will publish the scheme including any attachments and including any conditions the Minister imposes on the scheme's approval, on the Professionals Australia website within 14 days of its approval. Professionals Australia will ensure the scheme and any conditions the Minister imposes on the scheme's approval remains published on the Professionals Australia website for the term of approval.
4. Professionals Australia will verify the identity of applicants for assessment under the scheme in accordance with the recognised 100-point identification check utilised within relevant State and Federal Government Agencies. Any collection of private information will be in accordance with the National Privacy Principles ("NPP") in relation to the collection and use of that personal information. Professionals Australia will comply with the NPP contained in schedule 3 of the *Privacy Act 1988* (Cth).
5. Professionals Australia will ensure that applicants for assessment under the scheme provide the original or a certified copy of each document that evidences the applicant's qualifications (e.g., degree, testamur, academic record, etc.)
6. Professionals Australia will ensure that applicants for assessment under the scheme have any certified copies of documents they provide, certified by authorised persons in accordance with the relevant State legislation where the documents originate. For example, if the documents are being sent from Queensland then only persons authorised by s19 of the *Oaths Act 1867* should be accepted.
7. Professionals Australia will ensure that applicants for assessment under the scheme who have documents in a language other than English, provide those documents translated into English in accordance with the following guidelines:

If the documents are translated within Australia:

- The translator must be accredited by the National Accreditation Authority for Translators and Interpreters (NAATI) – [www.naati.com.au](http://www.naati.com.au).
- The Australian Institute for Interpreters and Translators (AUSIT) Directory of Translators provide a current list of qualified, active AUSIT members who have NAATI accreditation in translating – [www.ausit.org](http://www.ausit.org).

If the documents are translated in a country outside Australia:

- The translator must be approved by the authorities in the country where the translation is made. The International Federation of Translators (IFT) – [www.fit-ift.org](http://www.fit-ift.org) – provide a list of translation associations, some approved by authorities to provide certified translation.

8. Professionals Australia will notify BPEQ within seven days if a person who is registered with the entity for participation in the continuing registration requirements (CRR) of the scheme does not participate in an audit by the entity of the person's compliance with the CRR within 30 days of Professionals Australia requesting the person do so.

9. By no later than 30 March each year, Professionals Australia will tell BPEQ in writing, for the period starting at the beginning of March in the previous year and ending at the end of February in the current year:
  - a. the following regarding audits of persons who were registered with Professionals Australia for participation in the continuing registration requirements of the scheme.
    - i. how Professionals Australia selected the persons for audit;
    - ii. the number of persons that were audited; and
    - iii. the results of the audits; and
  - b. the following regarding audits of assessments against the scheme of the qualifications and competencies of applicants:
    - i. how Professionals Australia selected assessments for audit;
    - ii. the number of assessments that were audited; and
    - iii. the results of the audits.
10. Professionals Australia will notify BPEQ within seven days of becoming aware of any of the following situations:
  - a. regarding audits of persons registered with Professionals Australia for participation in the continuing registration requirements of the scheme for their compliance with the continuing registration requirements:
    - i. an audit found that the person has not complied with the continuing registration requirements of the scheme (to be accompanied with the results of the audit);  
or
    - ii. a person did not participate in an audit within 30 days of being requested to do so; and
  - b. regarding audits of assessments undertaken against the scheme by the entity's assessors of the qualifications and competencies of applicants:
    - i. the applicant was assessed as having the qualifications and competencies provided for under the scheme when the applicant did not; or
    - ii. the applicant was assessed as having the qualifications and competencies provided for under the scheme because of fraud, dishonesty, deception, or similar; or
    - iii. the entity has any other concern about the assessment.
11. Professionals Australia will keep records of its activities under this approval and the scheme as if the records were public records within the meaning of the *Public Records Act 2002* (Qld) and in accordance with section 7 of the *Public Records Act 2002* (Qld).
12. Professionals Australia will submit to audits of its compliance with the approval and the scheme. The auditor will be BPEQ or an agent appointed or engaged by BPEQ to conduct the audit on BPEQ's behalf. Audits may be conducted at any time. If the term of approval for the scheme is three years or less there will be one audit. If the term of approval for the scheme is

for more than three years, there will be two audits. Professionals Australia will make its best effort to cooperate with the auditor.