



ANNUAL REPORT

BY THE

CHARTERED PROFESSIONAL ENGINEERS COUNCIL

ON THE

PERFORMANCE OF THE REGISTRATION AUTHORITY

FOR THE PERIOD

1 JANUARY 2020 TO 31 DECEMBER 2020

CPEC

Chartered Professional Engineers Council
Kāhui Kaiwetepanga Ngaio Whaimana

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1 INTRODUCTION

This report is the assessment by the Chartered Professional Engineers Council (the Council) of the Registration Authority's (RA) performance and exercise of its functions and powers pursuant to Section 53 of the Chartered Professional Engineers of New Zealand Act 2002 ('the Act'), for the period 1 January to 31 December 2020.

The RA is the Institution of Professional Engineers New Zealand Incorporated, trading as Engineering New Zealand (EngNZ).

The RA's functions are set down in S39 of the Act and include to:

- (a) make, and always have, rules relating to chartered professional engineers, prepared and approved in accordance with the Act;
- (b) register persons, issue registration certificates, assess continued registration;
- (c) keep and maintain the register of chartered professional engineers;
- (d) receive, investigate, and hear complaints about chartered professional engineers in accordance with the Act.

Section 52 of the Act requires the RA to report to the Council on the operations of the RA and the chartered professional engineer register for a 12-month period ending on the preceding 31 December.

As part of its review and appeal functions under S45 of the Act, the Council continues to invite the RA to each quarterly Council meeting to:

- present and discuss reports on assessments and complaints,
- monitor the time taken for the hearing of complaints,
- consider the outcomes of appeals,
- maintain dialogue on the Act and Rules, regarding their efficiency, appropriateness and scope for amendment.

2 REGISTRATION AUTHORITY'S ANNUAL REPORT

The RA has provided the Council with its annual report for the period 1 January to 31 December 2020. The report provides both quantitative and qualitative information on activities performed by the RA and records the work undertaken by the RA in fulfilling its obligations under the Act.

A copy of the RA's 2020 annual report is submitted to the Minister with this report and provides commentary and information on the following topics:

- **CPEng Review:** Identification of 18 proposals for change as part of the RA's review of the CPEng system, and consultation with MBIE and CPEC ahead of issue of a consultation document in November 2020.
- **Strategic priorities for 2021:** Identification of several priorities to improve and streamline the RA's systems and processes.
- **Competence assessment:** A surge in applications for admission as CPEng registrants; Continued Registration Assessment resourcing issues; introduction of two types of triaging process aimed at streamlining the reassessment process; registration candidate satisfaction survey findings; Competency Assessment Board membership; numbers of assessors; assessment

workload and responses to factors impacting on it in 2020; and focus on further recruitment of assessors in 2021 to meet projected demand.

- **Register/Assessment trends:** Year on year registration statistics, age and gender breakdown; engineering practice field data and geographical distribution of registrants.
- **Complaints and disciplinary activity:** Disruptions due to Covid-19; continued improvement in the profession's capability for resolving complaints; development of decision maker capability – namely Investigating Committee and Disciplinary Committee Chairs; and application of lessons learned from complaints.
- **Complaints snapshot:** Statistics on concerns and complaints received and closed; duration of complaints; themes and trends including observation that almost all complaints include an element of relationship breakdown between the parties; an update on the Greater Christchurch Claims Resolution Service (GCCRS) and Canterbury Earthquakes Insurance Tribunal (CEIT) and an update on the EngNZ's own motion inquiry and systems report.
- **Case studies:** Three case studies showing how complaints are being processed, including a case upheld by a disciplinary committee, a case dismissed by an investigating committee and a case resolved through the process of early resolution.
- **Financials:** Commentary on an increased net deficit, summary of fees for 2020 which have remained unchanged since 2015 (Appendix 1) and summary of fee income and costs incurred (Appendix 2).

3 REPORTING REQUIRED BY THE ACT

The RA's reporting requirements are set out in S52(2) of the Act and the responses are summarised below.

- (a) the number of chartered professional engineers at the end of the 12-month period (**4010**); and
- (b) the number of persons whom the RA registered (**398**)¹ and the number whom the RA declined to register (**23**) during the 12-month period; and
- (c) the number of persons whose registration was removed (**79**), suspended (**117**) or placed in abeyance (**36**) during the 12-month period; and
- (d) the number of persons against whom the RA made a disciplinary order (**4**) during the 12-month period; and
- (e) the amount of the charge or charges payable in relation to registration or the issue of a registration certificate (**no change**) during the 12-month period; and
- (f) any other information that the Council reasonably requires.

The RA's report addresses the requirements of S52(2) (a) to (c) under Register Trends, (d) under Complaints Snapshot and (e) in Appendix 1 & 2.

4 RULES FOR CPEng STANDARDS

No changes were made to the Chartered Professional Engineers Rules in 2020.

¹ First registered

5 THE COMPETENCE ASSESSMENT PROCESS

The RA's 2019 report had projected 1550 total assessments for 2020, comprising 350 first time assessments and 1200 continued registration assessments. In total 1008 assessments were completed, and these are discussed further below.

Initial Registrations: During the year, 421 initial registrations were processed, 398 approved and 23 declined. The number processed is 20% above the number projected in the 2019 report and pleasingly represents a 66% increase on the previous year's assessments. For further comparison, the 2020 number is 30% higher than 2018, which itself was higher than average. The average time for initial assessments has eased to 101 days from a historical peak of 120 days in 2019. This indicates an interruption of a trend which saw average times of 81 days in 2017 rising to 92 days in 2018 and peaking in 2019.

Mutual recognition: 31 successful applications for CPEng were assessed under mutual recognition schemes, 5 via the Trans-Tasman Mutual Recognition Act and 26 through mutual recognition with other jurisdictions. This total number and mix are the same as for 2019.

Continuing Registrations. During the year, 587 applications for assessment for continuing registration were processed, up 16% on the previous year. The RA has noted that their initiatives to streamline the reassessment process in 2020 helped them to process reassessment applications more efficiently. Two types of triage have been introduced to better focus assessment effort. All applications were passed through general triage for review against a series of risk factors to determine whether a one-person or two-person assessment panel would be assigned. In addition, a technical triage panel was piloted for structural engineering registrants. The substantial increase in initial assessment applications hindered progress with the backlog of reassessment applications. The average time for re-assessment was 147 days, significantly lower than the 2019 figure (160 days). A similar trend is evident to that which is demonstrated for initial registrations. i.e. Average days increasing from 2017 before peaking in 2019.

Assessment pass rates: The assessment pass rate remains relatively high at 95%, a little lower than the previous three years. It is noted that this figure is expressed in terms of validated assessments. This means that when account is taken of assessments which are withdrawn because they are deemed insufficient, or the applicant has been advised to submit at a later date in order to benefit from more time in the professional environment, the true pass rate is lower.

The year ahead: The RA has not projected assessment workload levels for 2021 but has identified two key areas amongst its strategic priorities for 2021:

- Addressing current assessment resourcing constraints and associated backlog of re-assessments,
- Developing a robust assessor recruitment process.

The Council acknowledges the RA's efforts with regard to assessment capability and processes and notes an improvement in numbers of assessments conducted compared with 2019 and also a reduction in processing time per assessment, with some progress made towards meeting their 84-day target for assessments.

The Council continues to have confidence that the RA is maintaining a credible and robust competency assessment system that fulfils its obligations under the Act.

6 REGISTER TRENDS

The RA's report provides quantitative information and qualitative commentary on the trending number of CPEng, age distribution, gender breakdown, fields of engineering practice and geographical distribution of registrants. The Council acknowledges the detail provided by the RA in Table 1, where more information is provided than in previous reports, including comparative data for prior years.

The number of CPEng registrants continues to steadily increase and there has been a clear surge in the number of first-time assessments undertaken which is a healthy sign for future engagement by engineering professionals.

The diversity drive begun by the RA in 2018, continues to yield positive results with the percentage of women with CPEng registration rising from 9.7% at the end of 2019 to 10.3% by the end of 2020, at which time there were 412 women on the register. This is ahead of the target set in 2018 for 400 women on the register by the end of 2021.

The top three fields of engineering practice continue to be civil, structural and management. Geotechnical has overtaken environmental during the period under review with an additional 38 registrations. The fields of Water Engineering, Mechatronics and Software were added in 2019. 46 registrants were added to the Water Engineering practice field in 2020, but no registrants have been identified in the categories of Mechatronics or Software.

The geographical distribution of CPEng registrants continues to be dominated by Auckland at 37%, followed by Canterbury at 18% and Wellington at 11%. In 2019 8.3% of registrants were reported as non-members of EngNZ. That group has dropped to 5% over the reporting year.

7 COMPLAINTS & DISCIPLINARY ACTIVITY

Disruptions related to the Covid 19 pandemic, a high number of complex complaints and a backlog of complaints from prior years have all had an impact on the RA's operations over 2020. A reported upside of the pandemic situation was that it encouraged the RA to consider new ways of working, an example being virtual disciplinary hearings, held using Microsoft Teams. Virtual hearings will continue to be available as an alternative to in-person hearings where appropriate.

The RA has continued to promote the use of their 'Managing Complaints' toolkit and during the year presented a webinar for EngNZ Members and CPEng registrants on the complaints process, including advice on avoidance of complaints and effective management of them if they arise. It is the Authority's intention to repeat these forums in 2021 and the Council agrees there is merit in this.

With regard to decision maker capability, the RA had 8 Investigating Committee Chairs and 3 Disciplinary Committee Chairs at the end of 2020. The report notes that no appeals were upheld by CPEC against the RA's complaints decisions during 2020.

During the year meetings were held with representatives from a number of building consent authorities to discuss issues arising from engineering during the consent process. These connections are being developed to keep apprised of trends and themes for use in ongoing education of the members and registrants.

In line with previous years, the RA has observed a continuing larger number of complaints arising from the structural residential sector. In 2020 structural (which included non-residential structures) represented 70% of complaints compared with 67% in 2019 and 87% in 2018.

The RA's legal team continues to include a column in every issue of EngNZ's quarterly *EG* magazine, based on case studies and the team regularly contributes to the email newsletter *Discover*.

The RA has presented three new case studies to demonstrate how they are being resolved through the complaints process, promoting the approach of working with the parties to achieve resolution that is proportional and fair, which in turn helps rebuild trust and confidence in the profession. The case studies address early resolution, a complaint dismissed by an Investigating Committee and a complaint upheld by a Disciplinary Committee.

8 COMPLAINTS STATISTICS AND TRENDS

There was a slight increase in the number of concerns (44) received by the RA in 2020 from the prior year (41), with the number closed (34) being similar to 2020 (33).

As observed in 2019, a higher number of complaints opened have progressed through to the Investigating Committee and Disciplinary Committee stages, leading to longer timeframes for resolution. A third Disciplinary Chair was appointed in 2020 and the focus of the RA for 2021 is on ensuring sufficient resources to manage what is a heavy complaints workload.

The Council considers the complaint process is working well but notes and agrees with the RA's observations regarding the duration of the process, particularly where cases progress through several stages. As noted previously this is further extended if the outcome is appealed at any of the stages. This will be an important point to be addressed in the reforms of legislation governing the engineering sector and gives weight to the merits of removal of a layer from the total complaints/appeal process.

Of the 34 concerns closed, 56% (19) were resolved via the early resolution process, 15% (5) were dismissed by an adjudicator, 18% (6) were dismissed by an investigating committee and 12% (4) were upheld by a disciplinary committee. The closure of concerns by the early resolution process was a significant success comparing well with 2019.

The categorisation of complaints indicates design competence (53%) and ethics (47%) as the two primary factors, with structural engineering (70%) continuing to be the main field of practice involved in concerns or complaints. (See also comments in 7 above)

9 OTHER CPEng RELATED ACTIVITIES

9.1 CPEng Review

In 2020 the Registration Authority completed a comprehensive review of the CPEng system, with its focus on maintaining a robust and unambiguous framework that works for all engineering professionals and for the public. The findings of the review and draft proposals for strengthening the CPEng system were shared with, and received support from, both MBIE and CPEC before a finalised consultation document was released in November 2020. The review identified 18 proposals for change.

The Council will continue to engage with the RA and MBIE as the review process evolves. The Council agrees that there is merit in changes to the CPEng process that can be made without the full overhaul of the Act that is expected to take several years to be implemented.

9.2 Own motion enquiry and systems report

An outcome is expected by mid-2021, on EngNZ's Own Motion Inquiry into engineering design of six buildings in Masterton. The inquiry was launched by EngNZ in late 2016. The focus is on identifying clear and actionable recommendations for addressing the issues that are being identified. A related systems report is expected to be completed by the end of 2021.

The Council continues to support the system and sector review recognising the potential to reduce risk and raise public satisfaction and confidence with the engineering profession.

9.3 Greater Christchurch Claims Resolution Service and Canterbury Earthquakes Insurance Tribunal:

The Greater Christchurch Claims Resolution Service (GCCRS) has been operating since October 2018 as a free case management service for residential homeowners in Christchurch who need assistance to resolve their outstanding insurance claims.

Following consultation with engineers, homeowners, lawyers and insurers, EngNZ established an expert engineering panel to assist the GCCRS with claims resolution.

The services of the panel were extended to the Canterbury Earthquake Insurance Tribunal (CEIT) when it was established in 2019. Up to the end of 2020, EngNZ had received 285 referrals to the panel and feedback on the service continues to be positive.

The RA notes that the panel's work is a direct response to what the Registration Authority have seen through complaints. Complex issues in several appeals that predate the GCCRS and CEIT initiatives highlight the value that these initiatives offer. The Council again acknowledges that these initiatives serve as a very good example of the profession working collaboratively with stakeholders to overcome or lessen the impact of long-standing issues.

10 THE COUNCIL'S PERSPECTIVE ON THE REGISTRATION AUTHORITY'S PERFORMANCE

The Council considers that the RA continues to perform well in the following areas:

- Maintaining a robust competency assessment and re-assessment process, where opportunities are being taken to maximise efficiency and effectiveness;
- Applying feedback, from consultation processes, the complaints process, and registration candidate surveys, to improve processes;
- The continuing increase in the total number of chartered professional engineers (**4010**), an increase of 3.4 % (131) since the last period;
- Continuing initiatives to achieve inclusion and diversity goals, highlighted by material gains in the percentage of female registrants during the reporting year;
- Ongoing initiatives to refine and streamline the complaints process;
- The continuation of the expert engineering panel for GCCRS and for CEIT utilising chartered professional engineers. This is an overall initiative which is expediting resolution of complex and longstanding issues.

The Council will continue to work with the RA in the pursuit of desired outcomes in the following areas:

- Process and regulatory developments that flow from the CPEng Review. The Council will continue to work closely with the RA and with MBIE in the development of both shorter term and longer provisions that will ultimately be incorporated in new legislation / regulations that govern the profession.
- Further reduction in processing times for CPEng assessments, supported by regular and effective forecasting of demand and availability of trained assessors and lead assessors. The Council and the RA discuss this at least on a quarterly basis. The Council continues to engage with the RA regarding appropriate actions, targets and timelines to support further improvements. Again, the Council acknowledges the RA's dependence on volunteer inputs and that the problem is not simply resolved.
- Continuing to keep Engineering New Zealand members and CPEng registrants up to date with progress regarding the status of, and differences between, the Chartered Member and CPEng quality marks, especially in view of consultation documents in circulation regarding reforms affecting the profession.
- Planning to manage the significant financial deficit, prioritising and scheduling specific actions and tracking progress. This continues to be addressed at regular council meetings. The RA has

reported a net deficit of \$425,834 for 2020 compared with a 2019 deficit of \$195,724. The cumulative deficit of \$1,732,165 is being carried by EngNZ and the Council notes that this is ultimately a matter for the EngNZ Board to resolve.

- Amendments to the Levy Regulations - The Council and the RA jointly made a submission to MBIE proposing an amendment to the Chartered Professional Engineers of New Zealand Levy Regulations 2016. The submission proposed that there be flexibility in the timing of payment(s) and the maximum amount of the levy that the RA is required to pay to the Council each year. The proposal involved the ability of the Council to determine, in consultation with the RA, an amount, not to exceed a sum to be specified in the Regulations. At the time of writing, advice from MBIE is that legal aspects which may affect the scope for amendment of the regulations, are being considered.

11 SUMMARY

The Council acknowledges the RA's ongoing commitment to continued improvement, noting in particular the positive impact that early resolution measures are having on the processing of concerns and complaints. The Authority's role in facilitating panel services to the GCCRS and CEIT in Christchurch and its ongoing work with MBIE on the development of a new regulatory framework and licensing regime are also noted. Again, the Council notes solid growth in the number of CPEng registrants and a material gain in the percentage of female registrants.

The Council will continue to engage with the RA on the matter of assessment capacity and process refinement aimed at meeting demand from current and forecast candidate numbers and looks forward to seeing further implementation of triaging which has been piloted in 2020 for CPEng reassessments of structural engineers.

Once again, the Council notes the value it places on its strong relationship with the RA, where differences are discussed and respected but where the common goal is the efficient implementation of the requirements and intended principles of the Chartered Professional Engineers Act, Rules and Regulations.

Dated: 29 June 2021



Chris J Harrison

Chair

Council members:

Sandra Hardie (Deputy Chair)

Manjit Devgun

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