

**In the matter of the Chartered
Professional Engineers of New Zealand
Act 2002**

Appeal 13/15

AND

**In the matter of an appeal to the
Chartered Professional Engineers
Council pursuant to Section 35**

From

**Mr V
Appellant**

Against a decision of

**IPENZ (as the Registration
Authority under the Chartered
Professional Engineers of New
Zealand Act 2002)
Respondent**

**Decision of the Chartered Professional Engineers Council
Dated 9 August 2016**

The Legislation

1. Mr V appealed against an assessment by the Registration Authority being a decision of a Competence Assessment Board (CAB) of the Registration Authority (RA) declining his application for continued registration as a Chartered Professional Engineer (CPEng).
2. That right of appeal is contained in s35 of the Act and s37 of the Act sets out the scope of this Council's jurisdiction which is to deal with the matter by way of a rehearing. For that purpose we have been provided with the complete file of the Registration Authority relating to the case, which has been paginated.

3. Under s11 of the Chartered Professional Engineers Act 2002 (“the Act”) the Registration Authority must assess whether or not a registered person meets the minimum standards for continued registration contained in the Rules.
4. The Rules are the Chartered Professional Engineers of New Zealand Rules (No.2) 2002 (“the Rules”). The Rules were enacted pursuant to s40 of the Act.
5. Under the Rules minimum standards for registration as a Chartered Professional Engineer are set under Rule 6:

“6 Minimum standard for registration as chartered professional engineer

- (1) *To meet the minimum standard for registration, a person must demonstrate that he or she is able to practise competently in his or her practice area to the standard of a reasonable professional engineer.*
- (2) *The extent to which the person is able to do each of the following things in his or her practice area must be taken into account in assessing whether or not he or she meets the overall standard in subclause (1):*
 - (a) *comprehend, and apply his or her knowledge of, accepted principles underpinning—*
 - (i) *widely applied good practice for professional engineering; and*
 - (ii) *good practice for professional engineering that is specific to New Zealand; and*
 - (b) *define, investigate, and analyse complex engineering problems in accordance with good practice for professional engineering; and*
 - (c) *design or develop solutions to complex engineering problems in accordance with good practice for professional engineering; and*
 - (d) *exercise sound professional engineering judgement; and*
 - (e) *be responsible for making decisions on part or all of 1 or more complex engineering activities; and*
 - (f) *manage part or all of 1 or more complex engineering activities in accordance with good engineering management practice; and*
 - (g) *identify, assess, and manage engineering risk; and*
 - (h) *conduct his or her professional engineering activities to an ethical standard at least equivalent to the code of ethical conduct; and*

- (i) *recognise the reasonably foreseeable social, cultural, and environmental effects of professional engineering activities generally; and*
- (j) *communicate clearly to other engineers and others that he or she is likely to deal with in the course of his or her professional engineering activities; and*
- (k) *maintain the currency of his or her professional engineering knowledge and skills.”*

6. Relevant to the interpretation of Rule 6 is Rule 7:

“7 Definitions for the purpose of minimum standard for registration

For the purposes of rule 6,—

complex engineering activities means engineering activities or projects that have some or all of the following characteristics:

- (a) *involve the use of diverse resources (and, for this purpose, resources includes people, money, equipment, materials, and technologies):*
- (b) *require resolution of significant problems arising from interactions between wide-ranging or conflicting technical, engineering, and other issues:*
- (c) *have significant consequences in a range of contexts:*
- (d) *involve the use of new materials, techniques, or processes or the use of existing materials, techniques, or processes in innovative ways*

complex engineering problems means engineering problems that have some or all of the following characteristics:

- (a) *involve wide-ranging or conflicting technical, engineering, and other issues:*
- (b) *have no obvious solution and require originality in analysis:*
- (c) *involve infrequently encountered issues:*
- (d) *are outside problems encompassed by standards and codes of practice for professional engineering:*
- (e) *involve diverse groups of stakeholders with widely varying needs:*
- (f) *have significant consequences in a range of contexts:*
- (g) *cannot be resolved without in-depth engineering knowledge.”*

7. The overriding consideration is that expressed in Rule 6(1) that is that a Chartered Professional Engineer should be able to practise competently in his or her practice area to the standard of a reasonable professional engineer.
8. The matters listed in subsection 6(2) (a) to (k) *must be taken into account* in making an overall assessment required by Rule 6(1). However, the Rules do not provide for a mandatory “pass mark” for these matters, and nor could they. Ultimately, taking the matters in (6) (2) into account, an objective decision still needs to be made as to whether an applicant meets the overall standard prescribed in Rule (6) (1).

Background

9. The Appellant applied to the Registration Authority seeking continued registration as a Chartered Professional Engineer on 26 August 2013 in the following practice fields:
 - (a) Structural design of residential, commercial, industrial and public buildings
 - (b) Construction observation
 - (c) Structural design of low-medium rise buildings.
10. The application included:
 - (a) Submission for Continued Registration Assessment (Form CA02). This document included three work examples, being:
 - (i) Avondale College Stages 2A
 - (ii) ASB Gore
 - (iii) Jellicoe to Madden Edge Wharf
 - (b) Work History Summary (Form CA04)
 - (c) Continuing Professional Development Activities (Form CA05) from 2009 to 2013;

11. Two referee reports dated 12 and 19 September 2013 respectively were received by the RA from Mr Keith Stokes MICE, CPEng and Dr Mark Foo MIPENZ, CPEng.
12. Upon receipt of the application, an Assessment Panel was appointed consisting of Mr Michael Amptmeyer (Staff Assessor) and Messrs Graham Voysey and Derek Bradley (Practice Area Assessors).
13. The Assessment Panel reviewed Mr V's portfolio of evidence and undertook a brief (20 minute) interactive assessment by Skype on 6 May 2014.
14. Subsequently Mr Amptmeyer emailed Mr V seeking further information, which was provided on 22 May 2014.
15. This included calculations and drawings from two other work examples, being:
 - (a) Port Moresby Apartments
 - (b) Papatoetoe High School M Block
16. The Assessment panel submitted a report on 11 December 2014 (pages 79 to 84) recommending that Mr V's registration as CPEng be removed. Specifically, the Assessment Panel noted that although Mr V had taken steps to address key changes in his practice area (many resulting from industry experience resulting from the Christchurch earthquakes), he had not fully understood or comprehended the new knowledge, and that as a result Mr V *'is not able to practice competently as his ability to comprehend and apply knowledge of fundamental engineering principles (as they directly pertain to his practice area) is not adequate. In particular, Mr V's understanding of ductility and of displacement compatibility is of concern.'*

17. At their meeting of 17 December 2014 the CAB *'did not wish to reject or vary the recommendation and decided to invite the candidate to make a natural justice submission'*.
18. The Appellant submitted a natural justice submission on 23 March 2015 (page 85 - 186). This submission included specific comments on the Western Edge Wharf and Avondale College work samples; detailed design calculations for all three work examples listed on Form CA03, including further design calculations intended to address the concerns raised by the Assessment Panel in respect of Avondale College precast panel fixings; and evidence of an independent design check and a Producer Statement signed by Dr Mark Foo of QDesignz Ltd for the Avondale project. A further referee recommendation from Dr Foo was also included.
19. The submission recorded that to address the concerns of the Assessment Panel; Mr V had enrolled in Mr John Scarry's mentoring course of 20 2.5 hour sessions at Auckland University as a refresher course.
20. The natural justice submission also raised Mr V's concerns relating to due process.
21. The CAB sent the natural justice submission back to the Assessment Panel. The panel reissued their report (pages 199 - 203) on 5 October 2015. The revised report contained only one amendment (paragraph headed 25/9/15 page 202): *'The panel has reviewed Mr V's natural justice submission but concludes that no new evidence has been provided that would cause the panel to change its view. It is also noted that strut and tie calculations presented by Mr V to demonstrate competence are incorrect, and reinforce concerns the panel has with regard to Mr V's knowledge of fundamental engineering principles'*.

22. The CAB at their meeting on 4 November 2015 decided that registration should be removed and the RA advised Mr V of this decision by letter the following day.
23. On 24 November 2015 Mr V advised the Chair of this Council by email on his intention to appeal the RA's decision, but requested an extension of time until 25 January 2016 to lodge his appeal. The Chair responded advising that on the basis of Mr V's intention a panel would be appointed to hear his appeal at the Council's meeting in December and that Mr V's request for an extension of time to formally lodge the appeal was granted.
24. The Council appointed an Appeal Panel comprising Anthony Wilson (principal), Chris Harrison and Alan Winwood (members) at its meeting on 11 December 2015 and Mr V was advised of this by email on 23 January 2016.
25. No formal notice of appeal was received from Mr V, however all parties subsequently agreed to accept his original notice of intention as satisfying this requirement.
26. On 18 March 2016 the RA sent its paginated file to the Council and this was distributed to all the parties.
27. The process for progressing the appeal was confirmed by letter dated 2 June 2016.
28. The Appellant provided his submission dated 4 July 2016.
29. The RA provided their submission on 12 July 2016.
30. The Appeal hearing took place in Wellington on 15 July 2016.

The Hearing

31. Mr V's counsel Mr Kalev Crossland, his employer Mr Brian Jacob and Mr V all presented evidence. Their concerns are summarised as being:

- (a) That the evidence provided in support of Mr V's application was more than sufficient to demonstrate his competence, and that of the five work examples provided, the Assessment Panel had only raised concerns in respect of two and that these concerns had been extensively addressed by subsequent external peer review.
 - (b) That the Assessment Panel had stated that some of Mr V's calculations were incorrect without justifying this position by demonstrating the claimed errors.
 - (c) That no guidance had been given to Mr V, either in preparation for the interactive interview, or when invited to prepare a natural justice submission, that the Panel's major concern related to his understanding of fundamental engineering principles.
 - (d) That no credit or recognition had been given to the 20 week refresher course Mr V had completed in early 2015.
 - (e) That there were a number of process failures, including the time taken to process the application, the appropriateness of a Skype interview and that only one referee had been contacted.
 - (f) The additional work examples submitted by Mr V following the interactive interview (Papatoetoe High School and Port Moresby Apartments), were apparently never considered by the Assessors.
32. In response, the RA accepted that the process could have been better managed, but reiterated that, based on the Assessment Panel's advice; it still had concerns about Mr V's understanding of fundamental engineering principles.

Discussion

33. We note with concern the following:

- (a) The time taken to process the application, particularly the time between Mr V submitting his natural justice submission in March

2015 and reporting back to the Assessment Panel in October 2015. In all it took 15 months to process this application, significantly longer than the RA's stated goal of 84 days maximum.

- (b) The apparent lack of adequate guidance to Mr V as to matters which the assessment panel was seeking to see addressed during the Skype interactive and the natural justice submission.
 - (c) An apparent dominance of the Assessment Panel by one member who it was suggested by Mr V's counsel has views on the CPEng assessment process that are more onerous than the Rules require.
 - (d) Contact by the panel of only one of the referees.
 - (e) The lack of any comment of the additional work examples.
34. One matter raised during the hearing was Mr V's current status.
35. Although the RA determined that his registration be removed, it was established that as a result of his appeal the RA has not yet actioned this. Mr V, with the support of his employer, has however ceased to carry out certain functions as CPEng, in particular, ceasing to sign producer statements.
36. This does not align with s36 of the Act which states:

Decisions to have effect until appeal

Subject to the order of the Council or District Court (as the case may be), every decision of the decision authority against which an appeal is lodged continues in effect according to its terms until the determination of the appeal.

37. Notwithstanding concerns relating to process, this appeal hinges on whether or not Mr V has demonstrated competence and in particular whether he has addressed concerns relating to his understanding of fundamental engineering principles.
38. Mr V's counsel commented to the effect that the issue hadn't been proven by the RA. In the Appeal Panel's view, what is more to the point

is that it hadn't been disproven by the Appellant and the onus is on him to have done so.

Findings

39. Ultimately, the test of competency is an objective one made by the people making the assessment.
40. Having said that, the onus is always on an applicant to prove that he or she meets the appropriate standard for registration as a Chartered Professional Engineer.
41. In this case we conclude that the Appellant has not proven that he has met the requisite standard.
42. However, we are concerned that because it appears Mr V was given inadequate guidance as to the Assessment Panel's areas of concern and how these might be responded to; the assessment may not have yielded a fair and robust result.
43. We therefore direct the Registration Authority, subject to Mr V's agreement, to convene a new Assessment Panel of different members from the previous panel and conduct a new assessment with no additional costs levied to Mr V.
44. Mr V's submission may include any material submitted as part of his previous submission including the natural justice submission, and may include any new material that he considers relevant.
45. The new panel is not to be provided with any background material or correspondence from previous assessments that may bias the panel in any way.
46. Mr V is encouraged to provide additional and/or updated references. The new panel is to ensure that all referees are interviewed.

47. The new assessment is to include a face to face (not Skype) interactive interview if there are any issues that raise the possibility of the non-renewal of CPEng or IntPE and we encourage the RA to hold this in Auckland.
48. The new assessment is to be concluded as quickly as possible and in any event within 12 weeks.
49. The RA is to suspend the removal of Mr V's CPEng registration until such time as the new assessment is concluded or 31 December 2016 whichever is the earlier.
50. Should Mr V decline a new assessment, the decision of the Registration Authority for the removal of his CPEng registration is upheld.
51. While we have the power to award costs we do not consider it appropriate in this case.

Dated 9 August 2016

Signed By the Appeals Panel

Anthony Wilson BE(Civil) CPEng, FIPENZ, FICE
Principal

Chris Harrison, BE(Civil), CPEng, FIPENZ

Alan Winwood, BE(Civil), FIPENZ