

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

Appeal 01/20

AND

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

From

Mr A
Appellant

Against a decision of

The Registration Authority under
the Chartered Professional
Engineers of New Zealand Act
2002
Respondent

Decision of the Chartered Professional Engineers Council
Dated 22 December 2020

1. Mr A has appealed a decision of the Competency Assessment Board (CAB) of the Registration Authority (RA) declining his application for continued registration as a Chartered Professional Engineer (CPEng).
2. The panel has been provided with a paginated Bundle of Documents file (BOD) held by the RA in relation to the case. References to specific documents within this file are annotated “[BOD nnn]”. In addition, the RA have provided some confidential documents which the panel has agreed to keep confidential.

The Legislation

3. Legislation considered by the appeal panel is presented in Schedules 1 and 2.
4. Appeals to the Council are by way of rehearing (S37(2) of the Act). The appeal panel is entitled to confirm, vary or reverse a decision (S37(5) (a)) and may make any decision that could have been made by the decision authority (S37(5) (c)). Following *Austin, Nichols & Co Inc. v Stichting Lodestar* [2008] 2 NZLR 141, the panel is entitled to take a different view from the CAB but the appellant carries the burden of satisfying the panel that it should do so.

Chronology, submissions and correspondence

5. A registration chronology [BOD 463] was presented as an attachment to a letter, dated 29 July 2019 from the appellant’s solicitor to the RA’s registrar. This timeline commenced with the date of the appellant’s application for reassessment (15 January 2018) and concluded on the date of advice of the CAB’s proposed decision to decline the application (17 June 2019).
6. In answer to a question from the panel, senior counsel for the appellant replied that the record at 5 above remained accurate. The RA’s legal counsel responded that it was not inaccurate but excluded the assessment panel’s request for further work samples between the third written assignment and the interactive.

7. Key interactions and communications since 17 June 2019 are listed in Schedule 3.
8. Correspondence and submissions relating to the appeal process are listed in Schedule 4.

Grounds of appeal and outcome sought

9. The grounds of appeal are detailed in the Notice of Appeal dated 12 March 2020.
10. Ground of appeal 1 - The respondent provided inadequate and insufficient reasons for its decision that the appellant had no [sic] demonstrated sufficient competence in complex engineering.
11. Ground of appeal 2 - The respondent's decision was made in breach of natural justice in that it:
 - (a) Failed to properly consider material provided by the appellant in support of his application, or to provide the appellant with the opportunity to respond to its concerns;
 - (b) Failed to articulate the basis for its decision to the appellant so as to provide him with the opportunity to respond;
 - (c) Was predetermined;
 - (d) Did not provide the appellant with the opportunity to present to the CAB in person;
 - (e) Failed to properly communicate with the appellant;
 - (f) Was unjustly delayed.
12. Ground of appeal 3 – The respondent's decision was unsupportable and contradicted by available evidence.
13. The remedy sought by the appellant comprised two elements, namely:
 - (i) An order that the appellant be registered as a Chartered Professional Engineer, pursuant to s 37(5) of the Act, and
 - (ii) Costs

Decision being appealed and evidence considered

14. The “decision” under appeal is the 5 March 2020 decision of the CAB that Mr A’s application for renewal of registration as a Chartered Professional Engineer be declined.
15. Under S15 of the Chartered Professional Engineers of New Zealand (Appeals) Regulations 2002 (the Regulations) the Council may receive any evidence that the Registration Authority would have been entitled to receive on the decision being appealed.
16. The evidence considered by the panel in arriving at this decision included:
 - (a) Bundle of Documents (BOD) pages 1 – 783
 - (b) Analysis Documentation Tipping Bin Analysis, Revision 2 dated 4 March 2019 which had been omitted inadvertently from the BOD – provided by the RA by email 17 November 2020
 - (c) Submissions as noted above.
 - (d) The hearing conducted on 20 November 2020.

Hearing

17. A hearing date of 21st October 2020 was initially agreed after consideration of health and logistical restrictions and guidance relating to the Covid 19 pandemic. After resolution of subsequent submissions related to representation of the assessment panel and CAB, the hearing was rescheduled and took place in Auckland on 20 November 2020.
18. Present at the hearing were Mr B QC and Mr C, counsel for Mr A, who was present; Stacey Campbell, Ms D counsel for the RA with the Registrar of the RA, Peter Lourie, also present.

19. The hearing was recorded. It was noted by the panel that a transcript would only be prepared if the decision were appealed to the District Court. The notes below highlight where additional emphasis or detail was provided at the hearing.

Mr A

20. Mr B QC made an oral submission to the panel, on behalf of the appellant, referring to the paginated bundle of documents, the appellant's submission dated 13 July 2020 and the respondent's submission dated 27 July 2020.
21. Mr B submitted that the starting point for the panel in considering the matter of registration should be that the case was marginal, noting the RA's reference to the statement in the latter's submission at paragraph 13.2 that it was *"apparent from the assessment panel's conclusions that this was a marginal case."*
22. Mr B stated that the CAB's decision of 5 February 2020 [BOD 783] and the assessors' remarks on 23 September 2019 [BOD 754-755] where their primary concern was the tipping bin analysis work sample, should be read together and represent the issue.
23. Mr B referred the panel to an email from the registrar to Mr A's solicitor [BOD 331] in which the RA raised public safety concerns related to the appellant's submitted work sample.
24. In a further email to the appellant's solicitor [BOD 330] dated 20 February 2019, the registrar included an excerpt from the assessment report, referring to the "Tipping bin analysis- Project: PROC4788", which reported a failure to consider the effect of bending stresses on a riveted flange chassis construction, and further commented that *"repeated requests for further explanation have failed to give any better understanding of the process that Mr A has used."*
25. The statements at 24 above were responded to by the appellant's solicitor in a letter dated 27 February 2019 to the registrar [BOD 334] that included as an attachment, "Analysis Documentation Tipping Bin Analysis (Rev. 1) [BOD 339].

Mr B submitted that the attachment was as submitted previously but with Appendix A added by way of technical response, with A3 [BOD 390] presenting technical discussion.

26. Mr B referred to paragraphs 39, 40 and 42 which were in response to the assessment panel's concerns, addressing calculations, chassis and safety matters respectively.
27. Para 39 addressed software output as being equivalent to handwritten equations and challenged the assessor's position that it is practically impossible to review calculations in the file, further confirming an undertaking that the appellant would "provide manually completed equations replicating this process". Para 39 further challenged the assessor's claim of a fundamental error, explaining a numerical inconsistency was a typographical error.
28. Para 40 related to the assessors' concerns regarding the chassis. It asserted that the appellant had not treated the chassis "like a section of plain unmodified structural channel" but had taken into account its riveted flange construction and applied a conservative methodology. There was also clarification that the appellant had full access to and did use OEM data. It was submitted that the appellant had adequately responded to the assessment panel's concerns regarding his competency to undertake complex engineering in the field of heavy vehicle certification.
29. Para 42 submitted that "no substantiated safety concerns remain" and if there were any further safety concerns, requested further information including a copy of the independent assessment, the standard the panel was relying on with regard to the term overstressed, what the panel considers to be critical bending modes and the assessment criteria applied by the panel to assess the design's safety compliance.
30. Mr B raised the matter of an updated technical response, emailed by the appellant's solicitor to the registrar on 6 March 2019, which had inadvertently

been omitted from the paginated bundle of documents. The emailed attachment can be identified as “Analysis Documentation Tipping Bin Analysis – Rev. 2 4 Mar 2019”.

31. The updated technical response at 30 above contained two additional appendices: A18 - Written Solution (pages 55 to 162) and A19 – Calculations Parameters/Figures (pages 163 to 166). A-20, a disclaimer was previously A18 before the two additions. Mr B submitted that whilst the assessors had asserted later that these elements were new, they were available from 6 March 2019.
32. Mr B referred to a letter from the appellant’s solicitor dated 6 May 2019, and to a response from Ms Stacey Campbell dated 17 May 2019 [BOD 444]. That letter acknowledged having not yet responded to the Privacy Act request, noted that the assessment panel did not consider the appellant’s technical response [BOD 339] to have resolved its concerns about competency as a chartered professional engineer and indicated that the CAB would meet on 5 June 2019 to determine whether to accept the recommendations of the assessment panel. The letter contained a redaction [BOD 445], the contents of which are unknown to the panel. Mr B noted that the letter contained no reference to the 6 March 2019 submission.
33. Mr B submitted that the assessment panel had claimed extensive engagement and had indicated no value in continuing debate.
34. An email dated 17 June 2019 to the appellant advised that at its 5 June 2019 meeting the CAB had reviewed the recommendation of the assessment panel and proposed not to register the appellant, the stated reason being his inability to demonstrate sufficient competence in complex engineering. While the email referred to an attachment, there is no evidence of such an attachment.
35. In a letter to the registrar dated 29 July 2019 [BOD 456] the solicitor for the appellant applied for reconsideration of the CAB decision, addressing the correctness of the appellant’s analysis, claiming procedural unfairness and

unnecessary delay, the ignoring of relevant considerations and taking issue with the assessment panel's findings. Mr B referred to a third revision of the tipping bin analysis [BOD 465 to 682] and placed importance on reviews submitted from other engineers [BOD 693 to 742].

36. With reference to negative comments from the assessors regarding the bulk of additional material supplied [RA submission para 10.3] Mr B noted that the only new elements added since the 4 March 2019 version submitted on 6 March 2019 were Appendix B – Submission to ENZ CAB 2019 [BOD 685 to 692] and the reviews of the tipping bin analysis by others on behalf of the appellant [BOD 693 to 742]. Mr B submitted that everything else was available to the assessment panel on 6 March 2020.
37. Mr B highlighted an email from the registrar to the appellant's solicitor dated 13 August 2019 [BOD 744] in which the registrar noted "*the assessment panel will be requested to provide in writing, clear and considered reasons for its recommendations and specifically state how they have taken account of the information*". This was followed up in an email from the registrar to the assessment panel coordinator on 23 August 2019 [BOD 756] which included a request for response as to whether or not the assessment panel's original concerns had been met.
38. Referring to para 54 of the appellant's submission Mr B reiterated that much of the material provided to the assessors had been available from 6 March 2019 with the only new material being the 7 pages of Appendix B (8 including the heading sheet) and the reviews submitted by other engineers. He further submitted that the information provided demonstrated competence and that it raised the issue as to whether the assessors properly considered the bulk available since 6 March 2019. Related to this is the assessor's comment in an email to the registrar on 23 September 2019 [BOD 754] that "*the report now contains new information that was not previously submitted or previously reviewable. If that same information had been provided at the original application*

or soon after the PAA's request on or about 7 September 2018, it is possible that it would have been accepted by the PAA as demonstrating competence to CPEng level."

39. Mr B submitted that the expert reviews confirmed correctness of the appellant's submitted tipping bin example, that this was significant for the panel to consider in disposing of the appeal.
40. In addressing the seven reviews in relation to the appellant's tipping bin analysis work sample Mr B submitted the assessors had wrongly set out that the reviewer's reports mostly focussed on the vehicle's fitness for purpose and that competence was addressed.
41. With reference to the assessors' comments on expansion of a commonplace analysis to economic bulk [BOD 755] Mr B submitted that the observation was unreasonable because the length of the final product (response) was geared to answering concerns raised by the assessors.
42. In relation to emailed advice that the appellant's application had been declined [BOD 783] Mr B took issue with the CAB's position that the appellant had not demonstrated competence in complex engineering and had simply adopted the summary from the assessors.
43. In summing up Mr B referred to the appellant's submission [paragraphs 70 to 75] submitting that the CAB had not provided adequate or sufficient reasons for its decision and that the decision was insupportable and contradicted by the evidence.
44. Mr B asserted that the respondent's submission that a two-year registration term for a marginal case with an invitation to reapply is legally flawed and undermines his right to appeal. No references were made to the legal basis for this alleged flaw. He submitted that an appropriate term would be four years.

Registration Authority

45. Ms Stacey Campbell made an oral submission for the RA, commencing with an acknowledgement that the process, which usually takes in the vicinity of 85 days, had been long and would have been stressful to the appellant.
46. Ms Campbell submitted that the RA is responsible for assessing whether a candidate meets the requirements for registration and that the assessment is carried out in the right manner. She further asserted that the process is not a meeting of peers to talk about their work and reach consensus, but rather a process whereby a candidate submits material for assessment by an assessment panel which has the statutory delegated role to assess the material and reach a view on what should be recommended to the CAB.
47. Ms Campbell agreed that the case is in the marginal area but commented that the assessment panel had been very clear in its view, the decision having been arrived at after three written submissions and an interactive along with consideration of lengthy technical responses.
48. Noting that far from giving inadequate reasons for its decision, Ms Campbell asserted that the assessment panel had gone above and beyond its statutory obligations. She observed that the process is flexible and allows the panel to seek further information, request further assignments and hold an interactive but does not require all of these measures. Further it does not require three written assignments or engagement in further correspondence if any concerns are unresolved. She added that part of the reason for the length of the process was that the assessment panel went to some lengths to test the concerns that they had from the first submitted work samples, noting that the onus is on the candidate to demonstrate competency, not for the candidate to be told how they should demonstrate competency.

49. Ms Campbell submitted that there needs to be a cut-off point and it is entirely reasonable for the panel to state that its concerns are not resolved after the submission of three work samples.
50. In addressing referee reports Ms Campbell stated that there is a place for these and it is at the outset of the application and those reports were provided to the assessment panel, but she added that the independent reviews of the tipping bin analysis work sample were not helpful to the panel because there is no place in the assessment procedure for third party opinion to be substituted for the views of the assessors.
51. It was submitted on behalf of the RA that the referee reports were flawed in any event because the assessment panel did not know what the referees were being asked to evaluate – the analysis or the outcome.
52. It was submitted by Ms Campbell that while much attention has been drawn in the submissions to the tipping bin analysis, and this was also the focus of discussion towards the later stages of the application process, the tipping bin work sample was only provided because after the initial samples and three written assignments the panel still had reservations as to whether the appellant had demonstrated competence in complex engineering activities. It is not that the assessment panel only had concerns about the one sample.
53. The assessment panel's comment that it was possible that Mr A's application may have been accepted if all of the information that was provided by the end of the process had been provided at the outset, was in Ms Campbell's submission unhelpful in that it was speculative.
54. Ms Campbell expressed her understanding that there was no assertion that the panel had not followed the steps set out in the assessment process, resulting in the question being – was the right decision made? She added the assessment panel had followed the process and had done more than the statutory minimum in terms of the assessment and that the CAB made the decision appropriately

that was in their power to confirm, vary or reverse the assessment panel's recommendation.

55. Ms Campbell stated that the CAB is not the assessor and is not required to give detailed reasons for its decision. Further she asserted that the appellant was provided with more than the statutory minimum opportunities to respond to both the assessment panel and the CAB.
56. In addressing the appellant's claim that the RA's decision was predetermined Ms Campbell outlined that far from showing predetermination, the assessment panel went through extra steps including setting multiple written assignments, requesting further work samples that it was not required to do, and considering further responses, showing willingness to have their views tested or changed. The fact that the panel's view did not change, was not, in Ms Campbell's submission, a signal that the decision was predetermined.

Mr A response

57. In relation to the concerns of the assessors Mr B referred to the registrar's email of 20 February 2019 [BOD 330] noting that it sets out a very focussed concern in relation to the tipping bin analysis, there having not been any response or detailed analysis provided to the appellant listing details of concerns.
58. In relation to Ms Campbell's oral submission on the independent reviews, to the effect that they were not helpful and that there is no place for them in the assessment, Mr B referred to the breadth and non-prescriptive nature of the provisions in Rule 11, making particular reference to Rule 11(c) under which the assessment panel can invite the applicant to provide amongst other responses, other information and/or the contact details of up to 2 further independent referees.

59. Mr B further submitted that the submission of reviews by Mr A in response to concerns raised by the assessors, and to challenge the views of the assessors is something he was entitled to do as a matter of natural justice.
60. While Ms Campbell had previously referred to the independent reviews as unhelpful Mr B submitted that they are helpful and that there is a place for them in the assessment process.
61. With reference to Ms Campbell's submission that concerns of the assessors were not only in relation to the tipping bin analysis, Mr B submitted that they have never been described and Mr A had focussed on the specific concerns that had been stated.
62. Mr B raised Ms Campbell's submission at 53 above in which she regarded the assessment panel's comment that it was possible that Mr A's application may have been accepted if all of the information that was provided by the end of the process had been provided at the outset, as unhelpful. He described the assessment panel's comment as unusual and further observed that it was indicative that the assessment panel at that stage were not properly engaging, making reference to correspondence between the registrar and Mr A's solicitor [BOD 744] and between the registrar and Mr E [BOD 756].
63. The registrar's email to Mr A's solicitor [BOD 744] indicated that the assessment panel would be requested to provide in writing, clear and considered reasons for its recommendations and specifically state how they had taken account of the information provided. The email further noted that the assessment panel would be requested to confirm in writing that it had considered Mr A's earlier response of 4 March 2019 and state its opinion of that response.
64. The registrar's email to Mr E [BOD 756] requested that the assessment panel state how it has taken the information provided by Mr A into consideration and to provide clear and considered reasons as to whether or not the assessment panel's original concerns had been met.

65. In relation to paragraphs 62 to 64 above Mr B submitted that the assessment panel had not done what it was asked to do. Referring to the assessment panel's response [BOD 755] Mr B added that clear and specific reasons are not provided. He further commented that the response becomes a criticism of referee reports as being mostly focussed on the vehicle and that many new pages have been added, which is not correct. He then addressed the assessors' suggestion that the document received is too long, and comments made that Mr A is not able to boil down a complex problem to resolve it by clear and simple means. He asserted that this has been adopted by CAB.
66. Mr B raised concerns regarding earlier comments in the hearing where Mr Lourié indicated that the RA tries to keep the CAB out of technical decisions raising the issue of whether the CAB is meeting its obligations under the Rules and the Act.
67. With regard to the CAB, Mr B noted that the CAB must have members who are chartered professional engineers, or CPEng equivalent, and in appointing members the RA must have regard to the extent of experience and knowledge of professional engineering, their experience in competency assessments and quality assurance of competency assessments. Further referring to the decision-making provisions of the Rules Mr B noted under Rule 12 that the CAB must make a decision on an application. He submitted that making a decision is not reviewing it to see if due process has been followed and that the make-up of the board is clearly directed to making a decision on an application reviewing and looking at the assessment panel's recommendation, noting that the CAB is able to reject or vary a recommendation of the assessment panel.
68. Referring to a response by Ms Campbell that the material submitted by the appellant's solicitors on 29 July 2019 [BOD 456] had not allayed concerns of the assessors about fitness, noted that the assessment panel's response doesn't actually address the concerns and that if the concerns are still there asked the rhetorical question, where are they?

69. Referring again to the expert reviews provided by Mr A, Mr B submitted that they have substantial standing.

Panel Questions

Questions - Mr A

70. When asked how he knows if rogue results are produced when using his design software Mr A responded that the system is more accurate than a handwritten solution and commented that rather than software it is a coded solution. He then strayed onto commenting on its more systematic basis and its capacity for sensitivity analysis which does not address the question. Further open questioning did not result in a response beyond mathematical correctness. There was no response that indicated the application of instinct or judgment as a means of identifying a rogue result or inconsistency in the output result.
71. When asked if he has the quality assurance process written down Mr A responded that it is included in the file, citing the file name containing PROC which refers to the process. While he claimed that it was clear to, and understood by his counsel, the panel takes it that some of the detail is embedded rather than clearly displayed.
72. When asked to describe the approach used in selection of properties for analysis of the chassis rails in the tipping bin analysis, addressing criticisms by the assessors [BOD 336] Mr A explained the generic process involved. With further quite specific questioning he further discussed the analytical approach and made comparative references between his software and the alternative handwritten approach. With further questioning he responded that the analysis had taken account of the flanges and other elements of the rails and when asked whether he had conducted any localised analysis of riveted connections and was invited to point to a relevant example in the paginated bundle he and his counsel referred initially to Appendix A8 of his 27 February 2019 submission [BOD 404] and then spoke in more detail about rivets in transverse shear [BOD 413]. Having

got beyond discussion of the more generic elements of analysis, which were not the point of the question, he was able to discuss the analysis and performance of the rivets satisfactorily and displayed that he had a feel for the actions involved and the optimal location for rivets.

73. A question was asked regarding the reason behind Mr A's selection of a ductility factor of 3 in the braced frame associated with his boiler assembly platform work sample [BOD 121]. This had also been raised as a concern by the assessors in relation to the appellant's inclusion of the structural practice field [BOD 318]. He responded that it had been raised at the interactive and he had referred it to structural engineers for peer review. When asked how the ductility was to be achieved, he had difficulty answering satisfactorily and indicated he will be influenced by advice to be received from structural engineers.
74. Mr A was asked if he would have any problem with the structural practice area not being included in the event that his registration were to be renewed. His application had three practice areas and two practice fields. [BOD 180]. He replied that omission of structural would not be an issue. Further he was asked about the acceptability of practice area description [BOD 303], proposed by Mr Daniel Kennett specifically - "*Design, assessment and certification of (elastic or limited ductile) mechanical structures, mechanical equipment and heavy vehicles*". He responded that it would be acceptable. The same question was put to the RA who after some discussion agreed that such a description would not be wide of the mark but the Mr Lourié added the comment that it might be problematic for heavy vehicle certifiers where a structural element was not included.
75. In relation to the trench shield analysis work sample [BOD 86] where a 10 kPa surcharge was being taken into account for the effects of plant with up to 30 tonnes of loaded weight, Mr A was asked what his instincts were relating to the effects of the plant on the shield. His answer showed an understanding of the soil stresses, based on soil characteristics and also understanding of the analysis

but the panel were not convinced that he has an instinctive feel for the effect of the plant load on the trench shield such as may have caused him to consider or state assumptions about how close the plant should be allowed to get to the face of the trench in practice.

76. In answer to a question as to whether it would be correct to say that grounds of appeal related to natural justice and procedural aspects would be cured by the appeal process, Mr B responded that it would to a degree, that it would not be fair to say they would be entirely cured but noted that he would generally agree with the position advanced in the question.
77. Mr A was asked to explain his understanding of continuing professional development and what steps he has taken in recent years to address that. In response he referred to his application submission [BOD186] noting both Engineering New Zealand (CPD) and NZTA requirements (PRS). He claimed always being a high achiever and a good reader and noted elements recorded include course and seminar attendance and reading. He also submitted that he is an active member of the Heavy Vehicle Engineers Group, normally engaging at the AGM and has membership of other institutions like HERA, then noting that he was but is no longer a member of HERA. From a later question Mr A noted that he is still qualified as an international building inspector, which is governed by HERA.
78. On page 8 paragraph 24 of the appellant's submission there is an indication that in the previous (2013) application an identical work sample to the one now disputed was submitted, with positive reviews and that there now seems to be a contradiction. Mr A was asked to comment whether it was possible that there have been changes between then and now in the development of related engineering practice or technological change which might have meant that the sample submitted in 2013 is no longer ideal. Mr A responded that the two involve exactly the same procedure and content. He also indicated two positive reviews by NZTA on his system, noting there have been no changes to the

standards between 2011-13 and the present time. Mr A was then asked why some years later he would submit exactly the same work sample. He responded that there were differences in the vehicles but the method remained the same. He did add that he has developed his software system with new versions over time.

79. Mr B was asked about the document that had been omitted inadvertently from the issued bundle of documents and which was circulated by Ms Campbell in the week prior to the hearing. Reference was made to earlier comments on behalf of the appellant that the document had grown by the addition of appendices and it was pointed out by the panel that in fact there were changes to calculations on page 12 of the most recent version compared with the previous version [BOD 398]. An explanation was requested. After a scheduled break Mr B reported back that the change was isolated and he put it down to time pressure in the earlier document leading to typographical errors which were corrected in the version made available 6 March 2019.

Questions - Registration Authority

80. The RA were asked what conclusions were drawn by the assessment panel from the referee responses, and replied that the responses were brief and noted, correctly, that they are confidential to the panel. On further questioning the registrar confirmed that the referees were chartered professional engineers, it being a requirement that nominated referees be chartered professional engineers or equivalent.
81. The RA were asked if there is more information that they could share that lies behind the comment made by a member of the assessment panel to the effect that the outcome of the application could possibly have been different if the information provided by the appellant later in the process had been provided earlier. Ms Campbell responded that she took it as a “throw-away” comment and reiterated that she considered it unhelpful.

82. The RA were asked if they were able to provide additional detail on the robust discussion at the CAB that was referred to in the 13 February 2020 email from the registrar declining Mr A's registration [BOD 783]. The registrar commented that there would have been discussion around a review of what was provided by the (assessment) panel and the procedure involved advancing to addressing the recommendation. When asked, Mr Lourié confirmed that he was present and he confirmed that the description of robust discussion reflects what he observed. He added that when borderline cases are considered there is more discussion as to whether the assessment panel followed the proper process, which he further noted is the role of the CAB. He stressed that assessment panel are the subject matter experts and that the CAB looks at the procedure as they are not there as technical experts. The panel further asked if there were not occasions when judgment is exercised at CAB and there is a direction back, that might be based on an instinct that something appears not quite right. Mr Lourié responded that they (the RA) try to keep the CAB from "putting a technical lens" on matters being considered. He did add that if there was a justification for a decision which is not clear they would need to go back to the assessors.
83. The RA was asked about independent analysis of the tipping bin work sample and in particular if they could point to evidence in the bundle of documents that substantiates the assessors' comments regarding overstressing in critical flexural modes. Ms Campbell responded that any such analysis would have been done by the assessment panel themselves. Ms Campbell and Mr Lourié did not provide any further detail.
84. The panel referred to the subject of a fundamental or typographical error [BOD 325 and 336 para 10] asking if the RA consider it still to be an issue. Ms Campbell submitted that it is for the assessment panel to determine whether the error is fundamental or typographical further noting that accuracy is important. On further questioning with reference to the amount of discussion that there has been on the matter and whether it remained top of mind on the part of the RA, Mr Lourié replied that top of mind was the software programme that was behind

the work and errors that could be found in that. Ms Campbell added that the calculations had been provided in response to the assessment panel's concerns that Mr A had not demonstrated the workings behind the custom software and it was important that they know the work could be checked in handwritten form. The panel was concerned that the calculations had just been done to illustrate the approach rather than being a rigorous evaluation. Whether or not it was a fundamental error she submitted that it was fair for the assessment panel to take into account because it was still an error in checking the results produced. She didn't have any evidence that the panel had disregarded the matter. Mr Lourié added that the subject was included in the report which went to the CAB so concluded that it was still taken account of.

85. The RA was asked, had the applicant's registration been renewed at the time of the decision being appealed (13 February 2020) what the commencement date for renewal would have been. Ms Campbell noted her understanding that under the act subsequent terms must be concurrent and that in the normal course of events candidates would apply before the expiry of the previous term further noting that in this case the application was received late and there had been a lengthy process the next term would have run from the expiry of the last term. It would have been treated as a true renewal.
86. Referring to the documented issue of "needless expansion of analysis to uneconomic bulk" the RA were asked if there is any yardstick against which this can be measured. Mr Lourié stated that the RA do at times try to put a limit on documentation volume, particularly at the time of application and noted a preference for succinct submissions. Mr Lourié indicated that no page limits had been made known to Mr A.
87. The RA were asked with respect to software type submissions as part of work samples, if they have a process to include these in an assessment. Mr Lourié responded that they have a recommendation that candidates provide the basis for the technical calculations to help the assessors comprehend the software

programme submission. In essence the RA's position is that a software submission needs to be supported by calculations that demonstrate the competence behind the software.

88. The RA were asked whether or not the material submitted on 29 July 2019 allayed the assessment panel's concerns regarding fitness of purpose for the vehicle. Mr Lourié replied that he did not think it did. Ms Campbell responded that at that point and disregarding the appropriateness of independent opinion coming into the process, and regardless of whether the correct vehicle result was reached, other core competencies that needed to be demonstrated were still of concern. She commented that it didn't matter for the purposes of assessment whether the right solution for the vehicle was reached - the candidate had not demonstrated that he had got to the solution with the understanding needed to undertake complex engineering work.
89. In response to a further question Mr Lourié confirmed that both the March 2019 and July 2019 documentation had been looked at.
90. The RA were asked to elaborate on what the reviewers still saw as outstanding issues at the time of the 29 July 2019 documentation. Ms Campbell responded that she thought the panel was still concerned about the candidate's ability to boil down a complex engineering problem and had concerns about the ability to check and spot any inaccuracies produced by the software analysis. Despite the interactions and additional information those concerns were not resolved according to Ms Campbell and the assessors saw as a key part of professional engineering, the ability to make the complex simple and to understand the principles. She added that the preceding was probably informed by the fact that the initial work samples submitted were not sufficient to demonstrate complex engineering capability, there having been a foreground of concern which was investigated in the tipping bin analysis.

91. The RA were asked for an indication of the amount of time the volunteers (assessors) had spent on the case. Mr Lourié indicated that for a reassessment four hours would be regarded as a standard and that this case had gone well beyond the standard. He did not have a specific figure for this case. Mr Lourié added that it is not normal for there to be three assignments.
92. The RA were asked about the standing of the expert reviews that were provided. Ms Campbell responded that there is no standing as far as she is aware in the rules or the act for independent parties to give their opinion and none of the reviewers were practice area assessors or giving their opinion in the context of an assessment. She did not believe they were all CPEng and noted that some were academics. Even if it were appropriate to have the reviews, she submitted that they were of limited value.
93. The RA was invited to comment on Mr B's submission regarding the 200 extra pages submitted on 29 July 2019, of which he noted pages which differed from the previous version were only 7 in number, representing specific response and the pages comprising the expert reviews. Ms Campbell responded that it doesn't make much difference because the number of pages grew incrementally each time and regardless of there being only seven new pages it was necessary for the entire response to be read each time to make sure nothing else had changed.
94. The RA were asked to comment as to whether it was unusual or unorthodox for work samples to be submitted in computer form, such as the manner in which Mr A had chosen to submit, in the context of other candidates in a similar field. Normally according to Mr Lourié hand calculations are reviewed to allow cross referencing to confirm that what has been produced is correct. Ms Campbell highlighted that it is part of demonstrating that the candidate can comprehend and apply their knowledge of the accepted principles as opposed to just having a programme which can do the work for them. Asked if the RA had seen similar submissions to Mr A's in the past Mr Lourié said he had not but did reiterate

awareness that when computer output is submitted hand calculations/ annotations are used in the assessment process.

95. The RA were asked to summarise their position on the statement at para 71.3 in the appellant's submission, which claimed that the CAB's decision breached natural justice in that it failed to properly respond to or address Mr A's technical responses to its findings. In response Ms Campbell stated that this is an assessment process, not a peer review process where the goal is to get everyone on the same page. She agreed that the RA must follow the principles of natural justice but that does not extend to endless correspondence and endless interactions until both parties are satisfied. The candidate has an opportunity to provide work samples and the panel has an opportunity to interrogate those and to raise concerns with the candidate having the opportunity to respond. However, the candidate is not entitled to endless lengthy discussions. She further submitted that it was entirely appropriate for the panel to say that the concerns already articulated still remained without further elaborating on the reasons.
96. A further question from the panel related to the work sample submitted in computer coded format, in the context of allegations that sufficient explanations hadn't been given for decisions, and there hadn't been opportunities given for Mr A to address the concerns. The RA were asked if such complaints had been received before. Mr Lourié responded saying that it is important for candidates to self-reflect and review and take the onus to demonstrate their competence – to understand that it is up to them to respond and that there were issues. Ms Campbell then referred back to her previous comment regarding the nature of the assessment added that one cannot assess a candidate's competency by telling them what they should give the assessor and that they need to demonstrate the competency and that they have met the standard.
97. A question was then framed around the differences in situation between the similar work samples submitted in the successful application in 2013 and the

current application which has gone on for a considerable period. The RA was asked to explain the reason for the significant difference in circumstances in the intervening period. In response Ms Campbell reiterated that samples were not identical and that there was a different assessment panel. Further she suggested that the panel may have been alerted to concerns (which the panel takes to relate to complex engineering) from the first samples submitted, applying more focus than the previous assessment panel had.

98. A question was raised regarding the discussions around qualification for heavy vehicle assessors covering both mechanical and structural and focussed on whether Engineering New Zealand puts much weight on aspects such as candidates being members of the heavy vehicle engineering group. Mr Lourié indicated that to be something that the RA would want to see in the candidate's engagement through CPD. The RA was also asked if they take account of the NZTA evaluations but Mr Lourié replied that would be too specific.
99. The RA was asked if it accepts the allegation that the assessment of Mr A was fundamentally factually flawed and was directly contradicted by an abundance of material and further if they saw that there was any basis for the allegation. Ms Campbell responded that on one hand Mr A's position was that the vehicle was safe, and the analysis accurate, while on the other, the assessment panel had concerns about the workings. She added that even if the vehicle is safe the RA doesn't believe the core competencies have been demonstrated. The emphasis is on the candidate's ability to demonstrate his understanding, rather than demonstrating that the outcome is correct.

Questions - Mr A in reply

100. Reference was made by the panel to Mr B' comments about the CAB's role, in reaction to Mr Lourié's comments about endeavouring to keep the CAB focussed on process. Mr Lourié was asked if he felt that he had worded his response as accurately as he feels applies. Mr Lourié responded that the CAB are there to address procedure and process and they are not there as technical experts. Ms

Campbell and Mr Lourié indicated 9 disciplines represented on the CAB with 21 disciplines currently making up the professional membership portfolio. Mr Lourié was further asked if he believed the CAB should confine themselves to process and procedure and not apply judgment. Ms Campbell submitted that process and procedure extend to making sure that the assessment panel's report makes sense, that there is sound reasoning and that it is appropriate to accept the recommendation if they agree with it or send it back to the panel if they think something is missing. Further she commented that the CAB are not assessing the evidence but rather the reasoning and that the CAB members have general knowledge of professional engineering practice but not subject matter expertise to be able to make a technical assessment. When asked if the expectation was that the CAB make no judgment, such as raising an issue if something appears not to be right, Mr Lourié responded that they do have that opportunity which would mean going back to the panel for justification.

101. With reference to submissions by Mr B regarding measures available to the RA under rule 11, the panel asked if Mr A had been invited to provide the expert reports that he submitted. Mr B confirmed that there had been no such invitation but noted that Mr A had been engaged with by the assessors. Mr Lourié pointed out that Rule 11 pertains to an initial application. The parties then acknowledged that Rule 25 for reassessment candidates reflects Rule 11. Mr B made the point that the assessment panel can require other information and Mr Lourié acknowledged that point. Mr B commented that the requirements are not a closed, formulaic process but one that the assessment panel drives and that if a concern is made known there is an opportunity under natural justice to respond. Further he submitted if this step caused the appellant to provide supplementary reviews, they must be relevant and further that they could not be put aside as not allowed as part of the process. The panel asked if they had actually put the reports aside to which Mr B responded that they had not but qualified his comments as in the context of addressing the lack of standing submitted by Ms Campbell. He noted that the assessors had reported that the reports mostly

focussed on the vehicle and he submitted that they were broader than that. While not putting the reports aside Mr B submitted that assessors had rejected the reports.

Discussion – Considerations of the panel

Context

102. Central to the panel's decision must be whether Mr A has demonstrated that he meets the requirements for registration, and therefore that the panel should come to a decision which differs from that made by the CAB.
103. The onus is on the applicant to demonstrate that he meets the requirements for registration as a Chartered Professional Engineer and as submitted by the RA it is up to a candidate to submit adequate material for assessment. The panel agrees with the view of the RA that the process is not an iterative or collaborative process where stepwise guidance is provided by the RA.
104. The stated grounds in the Notice of Appeal, all of which relate to procedure or process, provide some context to the case but the panel is of the view that neither on their own, nor collectively, do they provide justification for renewal of Mr A's registration. No means other than by a candidate demonstrating competence can be regarded as a pathway to registration. The alleged procedural shortcomings, even if proven do not and cannot demonstrate competence. Further, and ultimately, public safety must be the paramount concern. The procedural elements are addressed in turn separately later in this document.

Tipping bin analysis work sample

105. Much of the focus in the latter stages of the application process and the appeal itself has been on several versions of a tipping bin analysis work sample. The tipping bin analysis was submitted after work samples that were submitted at the time of application for assessment for renewal of registration were considered by the assessment panel not to adequately demonstrate the appellant's competence with regard to complex engineering.

106. Several revisions were submitted by Mr A as the review by the assessment panel progressed. Generally, these involved incremental expansion by the addition of appendices. However, some changes were noted in the body of the base document and these were discussed in submissions and / or at the hearing.
107. The tipping bin analysis work sample was similar but not identical to a work sample submitted by Mr A at the time of his successful application for initial assessment in 2013.
108. A key issue which appears to underlie the outcome of the renewal application process is the nature of the tipping bin analysis work sample which was submitted in software output form. This form of output was variously referred to during the hearing as 'software', 'coded' and 'programme' output. Responses by the RA to questions at the hearing indicate that they would not regard this form of submission as standard and the panel agrees and considers it could be regarded as unorthodox. The more common form of design or analytical type submissions is handwritten calculation.
109. Concerns were expressed by the assessment panel on the basis that as submitted, the work sample did not demonstrate the competence of Mr A with respect to complex engineering. A central consideration here is how the sample demonstrates the applicant's knowledge of the principles involved.
110. The appeal panel agrees it is reasonable and entirely appropriate for the assessment panel to have applied significant scrutiny to the means of presentation in order to be satisfied whether or not the applicant fully understood the engineering principles and processes involved in the analysis - i.e., to differentiate between complex engineering and either non-complex engineering or work that could be readily done via the software by a technologist or lay person. A further issue with software-based systems is potential for error and the issue of how a professional engineer senses by judgment, cross-checking or experience when the output is indicating something that might not be correct.

111. During the hearing Mr A was asked (70 and 71 above) how he knows if rogue results are produced when using his software and his responses focussed on mathematical correctness and justification of the comparative accuracy of his system and did not adequately address the deeper assurance principles that the panel was probing for.
112. During the review process concerns had been raised regarding Mr A's selection of section properties for analysis of the riveted chassis rail element and related to this there had been suggestions that safety issues existed. The panel considered that Mr A adequately and appropriately addressed its question about this matter and had no reason to believe that the analysis or result was unconservative or unsafe.

Boiler assembly platform work sample

113. The assessor's report [BOD 318] noted a concern on the part of the assessors with Mr A's boiler assembly platform work sample. This related to his adoption of a ductility factor of 3 for a fully braced frame structural configuration. The appeal panel shares that concern from its own perusal of the work sample and during the hearing asked Mr A to comment on his reasoning behind his selection of a ductility factor of 3 [BOD121] for analysis. He had difficulty answering satisfactorily and further indicated he will be influenced by advice to be received from structural engineers. This relates to seismic design principles which in New Zealand is a subject area of significant importance when an engineer's competence and abilities in structural engineering are being assessed. The panel concluded that this was a factor which demonstrates that Mr A's practice area should not include structural at this time.

Trench Shield work sample [BOD 86]

114. When asked during the hearing about his instincts relating to the effects of 30 tonne plant on the shield Mr A's answer showed an understanding of the soil stresses, and their relationship to soil characteristics and also understanding of the analysis. However, the panel were not convinced that he has an instinctive

feel for the effect of the plant load on the trench shield such as may have caused him to question or state assumptions about how close the plant should be allowed to get to the face of the trench in practice. The answer suggested to the panel that this is an area where Mr A may not be currently suited to working independently.

Third party references

115. The appellant relied on submissions by third parties in support of his application. The RA regards these as having no standing, citing as a reason that they are not referees in the conventional sense of the registration process.
116. In relation to the previous point Mr B submitted that under rule 11 (1)(c) (initial registration) such material was admissible.
117. The RA submitted that the equivalent and applicable rule for continued registration is 25(1)(c)(i). The latter allows the assessment panel to invite the candidate to provide such additional material. In response to a question from the appeal panel the RA confirmed that no such invitation had been provided. While the material does not strictly have standing there being some question regarding the credentials of the "additional referees", the submissions do give some insight which suggests that Mr A is competent in the particular area of heavy vehicle engineering.
118. There has been discussion as to whether the supplementary referee reports submitted by Mr A focus on fitness for purpose or are broader in their coverage. However, a key factor remains Mr A's ability to demonstrate to the assessors that he possesses the necessary competence to undertake complex engineering activity and their response remains that they have not been convinced.

Assessors' recommendation and CAB's decision

119. The CAB's decision to decline Mr A's application for renewal of registration came at the end of a very lengthy period of exchanges between the parties with

frustrations clear on both sides as evidenced by a succession of solicitors' letters and responses to them. Some aspects of this are discussed further under alleged procedural failings.

120. When the time finally approached for a decision by the CAB Mr A sought and was given the opportunity to make a submission regarding the proposed decision of the CAB.
121. At paragraph 13.2 of its submission of 27 July 2020 the RA submitted *"It is apparent from the assessment panel's conclusions that this was a marginal case"* adding *"However, the panel was clear in its view that Mr A's application did not adequately demonstrate the required level of ability to undertake complex engineering activities."*
122. In opening oral submissions on behalf of Mr A, Mr B submitted that the starting point for the panel when considering the matter of registration should be that the case was marginal.
123. At paragraph 72 of the appellant's submission attention was drawn to a remark made by the assessors [BOD 754] which read *"The report now contains new information that was not previously submitted, or previously reviewable. If that same information had been provided at the original application or soon after the PAA's request on or about 7 September 2018, it is possible that it would have been accepted by the PAA as demonstrating competence to CPEng level."* During the hearing, in response to a question from the panel (81 above) Ms Campbell commented that she took the comment as a *"throw-away comment"* and submitted that the statement by the assessor was *"unhelpful"*. Mr B in reply labelled the comment *"unusual"* (62 above). The panel considers that the comment does provide insight into the thinking of the assessor and regards it as an indicator that the case is in the marginal category.
124. From its consideration of the bundle of the written and oral evidence and responses to questioning during the hearing, the panel takes the view that Mr A

has adequately demonstrated his ability to perform analytical and numerical engineering tasks related to the work samples submitted. However, he has not in the panel's view demonstrated clearly or in a compelling manner, his competency to undertake complex engineering. This does not mean that Mr A does not possess that competency, simply it means that he has not demonstrated it and thereby has failed to convince the assessors to the degree which would support a recommendation to renew his registration.

125. The fact that the assessment panel considered it necessary to set three assignments in addition to conducting an interactive with Mr A is an indication that Mr A's application was not compelling.
126. The panel agrees that the case is marginal and therefore that the assessment panel could have made a recommendation either to decline or renew Mr A's registration. Against the test of the standard of a reasonable professional engineer it is clear that Mr A had some serious shortcomings in his ability to demonstrate competency. A decision to renew, may have included a condition that the term be for a period less than the maximum available, consistent with the approach for marginal cases. [RA submission Para 13.4]
127. In the assessment process subject matter expertise clearly resides with the Practice Area Assessors. The CAB members and in this case the appeal panel members do not have the level of expertise to assess in technical detail the applicant's compliance with the requirements for registration and must rely on the recommendation of the assessment panel. This does not prevent the decision authority seeking clarification or additional information where it considers such to be warranted.
128. On 23 August 2019 in relation to Mr A's application for reconsideration the registrar requested the assessment panel to *".. state how the panel has taken the information provided by Mr A (attached) into consideration and provide clear*

and considered reasons as to whether or not the assessment panel's original concerns have been met." [BOD 756]

129. In response the co-ordinating assessor (Mr E) advised that the assessors had reviewed the material and stated their agreed summary of views and a recommendation that *"the applicant should be invited to reapply for assessment in the revised practice area (ie mechanical only)."* In response to a follow-up request from the registrar the assessor sent an email to the registrar effectively ruling out any further change to the recommendation. [BOD 752 and 90 above]
130. Correspondence followed between the RA and Mr A's solicitors [BOD 759 and 776] in relation to an RA proposal to appoint a new panel and also raising concerns about handwriting inconsistencies. The latter issue is no longer being regarded by the parties as a concern. However, after other correspondence and following objections to the new panel composition the stated preference by Mr A was for the original panel to complete the assessment [BOD 780].
131. The RA was faced with several challenges in the latter stages of the assessment process. They had received clear indication from the assessors that they would no longer engage and by implication were adhering to their recommendation of 23 September 2019, a difficulty being that assessors are voluntary roles which limit leverage that the RA may have. An initiative to assign a new assessment panel was challenged by Mr A. It appears the CAB apparently considered that the only way forward was to adopt the recommendation of the assessment panel.
132. In making or overturning a decision, as the case may be, the CAB (or appeal panel) is reliant on the recommendation of the assessors but ultimately is responsible for making a decision. The panel takes a broader view than that of the registrar [100 above] of the CAB's role in that to confine its focus to matters of procedure would be unduly literal and that the CAB might reasonably be expected to challenge technical points which may appear to lack logic or to be inconsistent. However, the CAB and similarly the panel should be careful not to

get into a position of overruling subject matter experts on matters of technical detail.

133. A major point of disagreement between the parties relates to whether or not the assessment panel properly took account of the material submitted by Mr A via his solicitor on 29 July 2020. This is discussed further under Alleged Procedural Failings below. However, it is clear that the last recommendation of the assessment panel which was made by email on 23 September 2019 [BOD 754-755] was to decline to renew Mr A's registration.
134. The assessors had effectively closed the door on further comment after responding via the registrar to Mr A's application for reconsideration and the alternative of referral of the case to a new panel was ruled out under objection by Mr A's solicitor. These factors combined with the inability of the panel to probe the recommendation of the assessors at the hearing, as a consequence of Mr A's objection to the assessors being heard at the hearing limits the options available in its decision. The option of sending the recommendation back to the assessors for further comment would serve only to delay the process further and without further insight into the detail behind the assessors' recommendation the panel concludes that it is limited in the extent to which it may vary the recommendation of the assessors.

Registration term

135. For renewal of registration, the term commences immediately following the expiry of the previous term. As confirmed by Ms Campbell during the hearing, Mr A's renewal of registration, had his application been successful, would have commenced on 1 January 2018 making his registration continuous with his previous term. Consistent with this principle, the start date for renewal if the panel decides to renew Mr A's registration will be 1 January 2018.
136. Under Rule 24(1)(b) the maximum term for renewal is six years.

137. In paragraph 13.4 of their submission, the RA noted that *“had the CAB decided to vary the panel’s recommendation and accept the application it would have granted a two-year term, which is typically awarded in marginal cases”*.
138. Mr B submitted [44 above] that the appropriate term would be four years.

Alleged Procedural Failings

139. The grounds of appeal all involve alleged procedural failings which are addressed below. As addressed earlier [104 above] procedural shortcomings, even if proven do not and cannot demonstrate competence. They do however contribute to establishing context and are able to be considered by the panel in finalising its decision.

Ground 1 - The respondent provided inadequate and insufficient reasons for its decision.

140. In its decision [BOD 783] the RA noted *“At its meeting on 5 February 2020 the CAB reviewed the recommendation from the assessment panel and, following a thorough and robust discussion, came to a consensus view that your client’s application did not demonstrate sufficient competence in complex engineering.”*
141. The RA’s statement in notifying Mr A of its decision was in the appeal panel’s view quite clear and given the comparatively substantial amount of input that the entire application had received, needs no further explanation. While the assessors did not provide in writing a response to the registrar’s requests of 23 August 2019 [BOD 756] and 10 October 2019 [BOD 753], in his last written statement on the recommendation, Mr E, the coordinating assessor, was adamant that sufficient information was already available to make a determination on the matter”.
142. Ms Campbell submitted [55 above] that the CAB is not required to give detailed reasons for its decision, further asserting that the appellant was provided with

more than the statutory minimum opportunities to respond to both the assessment panel and the CAB.

143. While the appellant may take a different view, the assessors were entitled and obliged to make their recommendation on their own assessment of the substantial volume of evidence available by that time. The appeal panel concludes that the total evidence suggests that no safety concerns or design shortcomings remain. However, it does accept that the assessment panel still held concerns regarding demonstration of competence in complex engineering and consider that the stated reasoning was sufficient and adequate.
144. The panel does not accept that this ground has been proven and in any event the ground has been remedied by this appeal process.

Ground 2 (Natural justice) (a) - Failed to properly consider material... or provide opportunity to respond

145. The appellant submitted that the CAB's decision was in breach of natural justice in that it failed to properly consider material provided by the appellant in support of his application, or to provide the appellant with the opportunity to respond to its concerns.
146. The RA disagreed [RA submission 12.22] submitting that the assessment panel had followed the procedures set out in the rules, sought further information from Mr A to explore concerns related to demonstrated competence in complex engineering and had also set three assignments to elicit the information.
147. The RA [RA submission 12.23] asserted that Mr A was also informed of the assessment panel's concerns about the tipping bin work sample and given the opportunity to respond, noting further that the (assessment) panel was not obliged by the Rules to enter into further correspondence about its concerns.
148. The RA submitted [RA submission 12.24] that the nature of the assessment process is broadly that an applicant provides material on which the (assessment)

panel is to make its decision together with at least one interactive. The RA submitted further that the assessment panel may set assignments or seek further information from the applicant if it chooses but is not obliged or expected to engage in multiple rounds of correspondence to assist an applicant to resolve its concerns.

149. The appellant's submission [47 and 48] addresses material submitted by Mr A's solicitor on 29 July 2019 following the proposed CAB decision to decline Mr A's application and asserts that *"it was not apparent that this documentation was considered at all at that time and that many criticisms which had been shown to be mistaken were retained in the decision"*.
150. On 23 September 2019 Mr E, coordinating assessor, sent an email report [BOD 754] to the registrar on the assessors' review of the *"latest documents in the series"* taken by the appeal panel to refer to the document which accompanied the 29 July 2019 letter from Mr A's solicitor [BOD 456]. That email indicates that both assessors had reviewed the material. It also made statements which have been addressed in the appeal process by both parties regarding the bulk of information supplied, the secondary nature of fitness for purpose of the vehicle in the tipping bin work sample and duty of a competent CPEng to be able to boil down a complex problem to resolve it by clear and simple means.
151. At the hearing Ms Campbell submitted [47 above] that the assessment panel had been very clear in its view, the decision having been arrived at after three written submissions and an interactive along with consideration of lengthy technical responses. Further she submitted that the panel went to some lengths to test the concerns they had from the first submitted work samples. She also noted that the onus is on the candidate to demonstrate competency, and it is not a situation where the candidate is told how they should demonstrate competency.

152. From the evidence, the panel agrees that the RA was right to seek further information from Mr A to enable assessment of his competence to undertake complex engineering work, in particular.
153. Clearly Mr A's initial application was not compelling and perhaps not helped by the inclusion a structural work sample (boiler assembly frame) which gave both the assessors and the appeal panel members concerns regarding his competence in the proposed structural practice area.
154. The panel is satisfied that the assessors paid sufficient attention to the material submitted, to provide them with a sound basis for a recommendation to the CAB regarding Mr A's registration and the evidence indicates that Mr A was given sufficient opportunities to respond to the assessors' concerns. Again, this ground is cured through the process of hearing this appeal.

Ground 2(b) - Failed to articulate the basis for its decision

155. This is addressed under ground 1 above.

Ground 2(c) – Was predetermined

156. Counsel for Mr A submitted [Appellant's submission 71.3 bullet 5] that the decision of the CAB *"was predetermined from the outset, by assessors who were unwilling to depart from their original findings despite an overwhelming degree of evidence contradicting their position"*.
157. The RA disagreed with the appellant's claim [RA submission 12.27] submitting that *"the (assessment) panel gave Mr A repeated opportunities to provide further work samples and information to alleviate its concerns about his demonstrated ability to undertake complex engineering activities"*.
158. The fact that the assessment panel did not change its recommendation following the receipt and review of additional material does not convince the appeal panel that the decision was predetermined and no evidence has been presented which supports such an assertion.

159. The appeal panel does not consider this ground to have merit.

Ground 2(d) – Did not provide the appellant opportunity to present to CAB in person

160. In paragraph 12.31 of its submission the RA agreed that the opportunity was not made available to Mr A noting further that rule 27(b) of the Rules requires the CAB to “give the candidate a reasonable opportunity to make written submissions on the matter”.

161. Mr A was given that opportunity and submissions were made on his behalf.

162. There is no requirement or precedent known to the appeal panel in regard to a candidate having the opportunity to present to the CAB in person and the RA cannot be found at fault on this ground.

Ground 2(e) – Failed to properly communicate

163. In paragraph 12.32 of its submission the RA disagreed and submitted that the (assessment) panel and CAB clearly articulated to Mr A what was required for his assessment and the reasons why his application did not meet the required standards.

164. In considering this ground the appeal panel notes the extensive sequence of communications which are addressed under Chronology, submissions and correspondence [paragraphs 5 to 8 above].

165. The appeal panel accepts the submission of the RA on this ground as reasonable and on the basis of the extensive sequence of communications consider that the ground has no merit.

Ground 2(f) – Was unjustly delayed

166. There is no question that the time taken to reach the decision that is the subject of this appeal is excessive.

167. In paragraph 12.35 of its submission the RA accepted that the application took much longer than average but disagreed that the delays were unjust.

168. The RA [RA submission 12.36] accepted some responsibility for the length of time taken, citing as factors the availability and workload of panel members and the timing of CAB meetings.
169. The RA [RA submission 12.37] submitted amongst other points that Mr A contributed in large part to the delay, referencing the raising of unsubstantiated concerns about panel members' conflict of interest; requesting withdrawal of his application and appointment of a new panel, providing substantial new information which took time to review and respond to; and filing judicial review proceedings.
170. The RA did not submit [RA submission 12.38] that Mr A had acted inappropriately in taking any of these steps [169 above], which were all within his rights but added that each of the matters contributed to delays.
171. The appeal panel agrees with the RA that Mr A was quite within his rights to have taken the steps referred to in 169 above but note that his decision to do so did have time consequences.
172. The appeal panel considers that both parties contributed to the length of time that this process has taken.
173. While the RA in its own submission [13.1] accepts that there were ways the process could have been better managed, the panel agrees but considers that it has not been established that delays on the part of the RA were unjust.

Ground 3 – Decision was unsupportable and contradicted by available evidence

174. Having read all of the evidence, submissions and supporting documentation, the panel finds that this ground has not been made out. On the contrary, the evidence does indeed support the panel's view that Mr A did not adequately demonstrate his competency and as such the decision was reasonable for what the panel agrees was a marginal case. In any event the rehearing on appeal cures this ground of appeal.

Findings

175. The entire process of Mr A's application for continued registration has been drawn out and both the RA and Mr A have contributed to this.

176. Mr A's initial application was submitted late and was not considered by the assessors to contain adequate evidence in support of his competence to undertake complex engineering work. As an existing CPEng and member of Engineering New Zealand, Mr A would have been aware that assessors undertake the role on a voluntary basis on behalf of the RA and that it is up to the candidate to demonstrate competency to them.

177. The initial application saw the start of a time-consuming sequence of submissions including but not limited to those requested by the panel to allay their concerns regarding, in particular, his competence to undertake complex engineering activity. Mr A provided information which had not been requested and which is not part of the requirement for application for renewal and he expected this also to be reviewed.

178. In the hearing both parties made reference to the marginal nature of the case. The assessment process in this case involved much more input by the assessors and the applicant, and more steps than a typical case contributing to frustrations on both sides. The crux of the matter is Mr A's ability to demonstrate that he understands complex engineering activity.

179. Having considered all of the evidence, the panel concludes that the demonstration of competence in this case is marginal and as such would find it equally reasonable for the assessors to have recommended that the application be declined or that it be accepted, albeit with a reduced term until the next reassessment. However, on the evidence available, there is no basis for renewal of registration for the maximum available term of six years or for a substantial portion of that period.
180. The panel is satisfied that Mr A's work in the mechanical area and based on his tipping bin analysis work sample does not represent a safety risk and that safety is not a hurdle to renewal of his registration for a specified limited term.
181. The panel considers that Mr A has not demonstrated his competence to undertake complex structural work and that 'structural' should not be included in his practice area description.
182. Having concluded in 179 above that the case is marginal, the panel considers that a decision to renew Mr A's registration for a modest term would be a fair outcome. It is noted that there were factors in the process that were beyond Mr A's control. This does not however imply that he did not contribute to the difficulties encountered throughout the long application process.
183. The panel is mindful that there were delays that could not be fairly attributed to Mr A. While the RA has indicated that a typical renewal term in marginal cases is two years, the panel considers that a three-year term would be appropriate. As renewal in this case would commence at the beginning of 2018, this means that Mr A will again need to apply for renewal at the end of 2020. Recognising the timing of this decision would make meeting the December 2020 deadline for applications impractical, a grace period of at least four months is appropriate.

Outcome

184. The decision of the panel on the substance of the appeal is that Mr A's registration is to be renewed for three years from 1 January 2018 and that an application for renewal for a further term from 1 January 2021 is to be submitted to the Registration Authority by 30 April 2021.
185. It was further determined that Mr A's Practice area description should omit structural and should take the following form:
- “Design, assessment and certification of (elastic or limited ductile) mechanical structures, mechanical equipment and heavy vehicles”*
186. In accordance with S35 of the Act either party may appeal this decision to the District Court within 28 days.

Costs

187. The Appellant has sought costs. The panel will issue a separate ruling on the matter of costs following submissions from the parties.
188. Given that both parties have contributed to the drawn-out process and that in reaching its decision the panel is clearly of the view that this is a marginal case, the parties should address in their submissions the reason why costs should not lie where they fall.
189. The schedule for submissions on costs is as follows:
- Submission by Appellant due by 22 January 2021
 - Submission by Respondent due by 9 February 2021
 - Submission by Appellant strictly in response by 16 February 2021

Dated this 22nd day of December 2020

Signed by the Appeals Panel



Chris J Harrison - Principal



Sue Simons



Sarah Sinclair

Schedule 1 – Legislation

1. The right of appeal is contained in S35 of the Chartered Professional Engineers Act 2002 (“the Act”). S37 of the Act sets out the scope of the Chartered Professional Engineers Council’s (the Council) jurisdiction which is to deal with the matter by way of rehearing.
2. Section 11 of the Act (see Schedule 2) sets out the minimum standards for continued registration of a chartered professional engineer.
3. The Rules are the Chartered Professional Engineers of New Zealand Rules (No.2) 2002 (“the Rules”) and were enacted pursuant to S40 of the Act.
4. Rules 6, 7, 20 and 23 are presented in Schedule 2
5. Rule 6 defines the minimum standards for registration as a Chartered Professional Engineer.
6. Relevant to the interpretation of Rule 6 is Rule 7 which addresses complex engineering activities and complex engineering problems.
7. The overriding consideration is that expressed in Rule 6(1), 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 Rule 6(2) 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 Rule 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).
9. Rule 20 prescribes the Minimum standard for continued registration as a Chartered Professional Engineer.
10. Rule 23 prescribes the information that must be provided to demonstrate continued competence:

11. The following outlines how the Act and Rules define how a candidate is assessed.
- (a) Rules 10 and 24 - the Assessment Panel must evaluate the candidate.
 - (b) Rules 11 & 25 - the process by which the Assessment Panel evaluates the application for initial or continued registration.
 - (c) Rules 12 and 26 - the CAB makes the decision to register (or not) an applicant for initial or continued registration.
 - (d) Rules 15 and 29 - the RA must notify and implement the decision.
 - (e) Rule 75 - the RA may appoint a sole assessor or an assessment panel.
 - (f) Rule 77 - the RA must appoint the Competence Assessment Board (CAB). There is one member on CAB from the RA Board, but they have no vote.
 - (g) Rule 80 - the RA may appoint a competency assessment reviewer.
 - (h) S11 of the Act - the RA must assess at the frequency set out in Rule 21 if chartered professional engineer meets the minimum standards for continued registration contained in Rule 20.
 - (i) S24 of the Act - the RA makes decisions relating to the registration of chartered professional engineers.
 - (j) S45 of the Act - one function of the Council is to hear appeals on decisions of the RA.
 - (k) S37 of the Act - the Council can confirm, vary or reverse the decision or parts of the decision.

Schedule 2 – Extracts of the Act and the Rules

S11 of the Act:

“11 Chartered professional engineer to meet minimum standards for continued registration

- (1) The Registration Authority must assess at the frequency required by the rules, and may assess at any other time, whether or not a registered person meets the minimum standards for continued registration contained in the rules.*
- (2) If the Registration Authority determines that the person does not meet those minimum standards, it must—*
 - (a) remove the person’s registration; or*
 - (b) suspend the person’s registration until the person satisfies the Authority that he or she meets those minimum standards and, if he or she does not do so within 12 months, remove his or her registration.”*

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.”*

Rule 7:

7 Definitions for the purpose of minimum standards 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.”*

Rule 20:

“20 Minimum standard for continued registration as chartered professional engineer

To meet the minimum standard for continued registration, a person must demonstrate that—

- (a) he or she—*
 - (i) is still able to practise competently in his or her current practice area to the standard of a reasonable professional engineer; or*
 - (ii) if the person’s practice area has changed materially since the last assessment, meets the minimum standard for registration within his or her current practice area; and*
- (b) he or she has taken reasonable steps to maintain the currency of his or her professional engineering knowledge and skills within his or her current practice area since the last assessment.”*

Rule 23:

23 Information that must be provided to demonstrate current competence

- (1) Each candidate who receives a notice under rule 22 must provide to the Registration Authority, by the specified date,—*
 - (a) a form containing the information set out in Schedule 1; and*
 - (b) the supporting information set out in subclause (2); and*
 - (c) a statement signed by the candidate to the effect that all the information is accurate and any evidence provided is genuine; and*
 - (d) consent from the candidate for the candidate’s name to be published on the Registration Authority’s Internet site for a period not exceeding 21 days, along with an invitation to the public to provide evidence about*

whether the candidate meets the minimum standard for continued registration.

- (2) A candidate must provide the following supporting information:*
- (a) evidence of the following (if applicable):*
 - (i) academic and other relevant qualifications obtained since his or her last assessment; and*
 - (ii) current registration on other professional engineering registers; and*
 - (iii) results from other relevant competency assessments since his or her last assessment; and*
 - (iv) professional development activities undertaken since his or her last assessment; and*
 - (b) chronological summary of the candidate's work history since his or her last assessment (including a description of employment positions and professional engineering activities in that period); and*
 - (ba) any evidence provided by the public in response to the invitation described in subclause (1)(d), along with any statement by the candidate in reply; and*
 - (bb) 2 or more work samples from recent engineering activities with annotations explaining how the samples demonstrate that the candidate meets the minimum standard for continued registration; and*
 - (c) any other information that the candidate wishes to be considered.*
- (3) The candidate may provide information in hard copy (in which case 3 copies must be provided) or in electronic form."*

Schedule 3 –

Key interactions and communications since 17 June 2019

- (a) 29 July 2019 [BOD 456] - email from the appellant's solicitor to the registrar attaching the letter and annexures referred to at 5 above.
- (b) 13 August 2019 [BOD 745] - email from the appellant's solicitor to the registrar seeking the decision of the CAB on the appellant's application, at its 7 August 2019 meeting.
- (c) 13 August 2019 [BOD 744] - email from registrar to the appellant's solicitor advising that after rigorous discussion regarding the appellant's reconsideration submission the assessment panel would be requested to provide clear and considered reasons for its recommendations, including how they have taken into account the information provided by the appellant. The email further indicated that the RA would be able to provide a final decision following the October 2019 CAB meeting.
- (d) 14 August 2019 [BOD 743] - email from the appellant's solicitor to the registrar acknowledging that the CAB must refer the matter back to the assessment panel for reconsideration but raising concern at further delays and questioning if the matter should reasonably be given priority to report back to the September meeting of the CAB.
- (e) 14 August 2019 [BOD 743] – email from the registrar to the appellant's solicitor, acknowledging the time that the process has taken, noting that the assessment panel need sufficient time to provide a considered review and stating that the CAB *“will look to review the assessment panel's findings ... at their October meeting”*
- (f) 23 August 2019 [BOD 756] - email from the registrar to Mr E, assessment panel member, seeking a statement as to how the panel had taken the information provided by Mr A into consideration and further asking for

clear and considered reasons as to whether or not the assessment panel's original concerns had been met. The additional information was attached to the email.

- (g) 23 September 2019 [BOD 754] - email from Mr E to the registrar summarising the assessment panel's views and commenting that *"The report now contains new information that was not previously submitted, or previously reviewable. If that same information had been provided at the original application or soon after the PAA's request on or about 7-Sep-18 [sic] it is possible that it would have been accepted by the PAA as demonstrating competence tom CPEng level"*. Other comments included that fitness for purpose of the vehicle concerned, were very much secondary to their position that there was a lack of clear evidence of the applicant's personal competence. This response also raised an issue around the bulk of additional material provided, the assessors' opinion regarding *"uneconomic bulk"* and submission that *"the duty of a competent CPEng is to boil down a complex problem to resolve it by clear and simple means."*
- (h) 4 October 2019 [BOD 747] - email from the appellant's solicitor to the registrar referring to previous indication that the proposed decision would be considered at the CAB's October 2019 meeting and seeking to be advised of the outcome.
- (i) 4 October 2019 [BOD 747] - email from the registrar to the appellant's solicitor in response, noting that the appellant's application had not been reviewed at the meeting, citing the assessment panel having not yet finalised its recommendations.
- (j) 7 October 2019 [BOD 749] - email from the appellant's solicitor to the registrar asking why the panel could not complete the review in the two

months since receiving the application and supporting documents, and when the CAB would expect to be in a position to consider the application.

- (k) 9 October 2019 [BOD 749] - email from registrar to the appellant's solicitor explaining that Mr A had provided a substantial response and that additional time was needed to finalise its recommendations to provide a clear and reasoned response to the CAB. The registrar noted that it was expected that the panel's response would be completed in time for the application to be reviewed at the CAB's next meeting on 6 November 2019.
- (l) 10 October 2019 [BOD 753] - email from the registrar to Mr E asking for handwriting samples of concern to be highlighted and requesting the assessor's report on the appellant's application for reconsideration by 14 October 2019.
- (m) 11 October 2019 [BOD 752] - email from Mr E to the registrar advising that he was *"not prepared to offer any more involvement with this matter"* and further offering the opinion that *"there is already sufficient information to make a determination on this matter.."*
- (n) 24 October 2019 [BOD 759] - email from the registrar to the appellant's solicitor advising of the RA's decision to appoint a new panel and raising an issue regarding handwriting consistency.
- (o) 25 October 2019 [BOD 776] - email from the appellant's solicitor to the registrar expressing concerns about delays, addressing previously expressed concerns of the appellant about the composition of the panel, seeking advice as to whom the CAB proposed to appoint and conveying the appellant's instructions that the handwriting samples sent to him were all the appellant's own.
- (p) 4 December 2019 [BOD 775] - email from the appellant's solicitor to the registrar seeking a reply to their email of 25 October 2019.

- (q) 9 December 2019 [BOD 775] - email from registrar to the appellant's solicitor advising appointment of new panel and intentions with regard to documents to be provided to them and inviting feedback by way of questions or concerns with the proposed actions.
- (r) 12 December 2019 [BOD 780] – letter from the appellant's solicitor to the registrar, objecting to new panel composition and the proposal to use work samples provided to the original panel, conveying the appellant's preference for the original panel to complete the assessment and amongst other points, addressing delays.
- (s) 13 February 2020 [BOD 783] – email from the RA to the appellant's solicitor advising the CAB's decision to decline the appellant's application for continued CPEng registration.

Schedule 4

Correspondence and Submissions

- (a) 14 March 2020 - email from the panel principal to the parties acknowledging receipt of the Notice of Appeal and instructing the RA to prepare a paginated bundle of documents.
- (b) 8 June 2020 - covering letter from the RA with link to the paginated bundle of documents.
- (c) 26 June 2020 - Confidential bundle of documents provided by the RA to the panel.
- (d) 26 June 2020 - Letter from panel principal to the parties advising panel members and process proposed, including submission timelines.
- (e) 13 July 2020 - appeal submission received from counsel for Mr A (agreed extension from 10 July 2020 deadline).
- (f) 27 July 2020 - submission from the RA.
- (g) 3 August 2020 - submission in response from Counsel for Mr A.
- (h) 20 August 2020 - letter from panel principal to the parties regarding hearing arrangements and outlining hearing agenda.
- (i) 8 October 2020 - letter from the panel principal to the parties confirming hearing arrangements and attendees.
- (j) 16 October 2020 - letter from Mr B QC challenging attendance of CAB and assessment panel members at the scheduled hearing.
- (k) 19 October 2020 - letter from panel principal agreeing not to include CAB and assessment panel representation at hearing.

- (l) 19 October 2020 - letter from RA (Ms Stacey Campbell) seeking adjournment based on changed representation.
- (m) 19 October 2020 - letter from Mr B QC challenging adjournment application.
- (n) 20 October 2020 - letter from panel principal granting adjournment.
- (o) 28 October 2020 - letter from the panel principal confirming venue, new hearing date and hearing agenda.