

DISCIPLINARY COMMITTEE DECISION

A COMPLAINT ABOUT DR ALAN REAY

In accordance with:

The Institution of Professional Engineers New Zealand Rules 1986

The Institution of Professional Engineers New Zealand Rules 2010

The Institution of Professional Engineers New Zealand Disciplinary Regulations 1986

The Institution of Professional Engineers New Zealand Disciplinary Regulations 2012

Code of Ethical Conduct 1986

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Members of the Disciplinary Committee

25 September 2024



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EXECUTIVE SUMMARY

1. This complaint involves allegations about Dr Alan Reay's professional conduct in 1986 relating to the CTV building's collapse in the Canterbury earthquake. Dr Reay was the sole principal of the firm that designed the building. The building was designed by his employee, David Harding in 1986.
2. Having reviewed all the information, we uphold the complaint.
3. We find that Dr Reay knew Mr Harding lacked the necessary experience to design the CTV building and that he failed to adequately supervise Mr Harding. We find that Dr Reay's professional conduct was a breach of the Code of Ethics in force at the time.
4. We have determined that, in all the circumstances, we should exercise our powers to discipline Dr Reay.
5. In summary, we order that Dr Reay:
 - a. Is admonished;
 - b. Is fined \$750; and
 - c. Is to pay costs of \$1,000.
6. We note the above fine and costs orders are the maximum available orders to us under the applicable rules and regulations.
7. We believe Dr Reay should consider issuing a public apology for his failure to adequately supervise Mr Harding in the design of the CTV building.
8. Publication of this decision is to follow, in accordance with the Disciplinary Regulations 1986.

INTRODUCTION

9. On 22 February 2011, at 12:51pm, a magnitude 6.2 earthquake struck Christchurch, causing the collapse of the Canterbury Television Building (the **CTV building**).¹ One hundred and fifteen people lost their lives when the building collapsed.
10. The CTV building was designed in 1986 by Alan M Reay Consulting Engineer (**ARCE**). At the time, Alan Reay was the sole principal of ARCE, a structural engineer and member of the Institution of Professional Engineers New Zealand (**IPENZ**).² The designer of the CTV building was David Harding, an employee of ARCE. At the time, Mr Harding was also a structural engineer and a member of IPENZ.
11. The Canterbury Earthquakes Royal Commission (**CERC**) was appointed by the Governor-General to investigate and issued its report in 2012 (the **CERC report**). The CERC report found that the CTV building design was seriously deficient.³
12. In 2012, Tim Elms (on behalf of the CTV building victims and families), and Mike Stannard (the Chief Engineer at the Department of Building and Housing, now the Ministry of Business, Innovation and Employment **MBIE**) raised complaints with IPENZ.⁴ The complaints, which were combined, concerned Dr Reay's professional conduct in relation to the CTV building.
13. The complaint before this Disciplinary Committee is:

Dr Reay's company [ARCE] provided the structural design for the CTV building, which collapsed in the February 2011 Canterbury earthquake, killing 115 people. The Canterbury Earthquakes Royal Commission found that the structural design of the building was seriously deficient in multiple ways. The employee engaged by Dr Reay to perform the design work [David Harding] lacked the necessary experience to design buildings of this type. Dr Reay knew this, but failed to adequately supervise Mr Harding.
14. The complaint has an extensive procedural history. In summary, the investigation process was stopped in 2014 following Dr Reay's resignation from IPENZ. In court proceedings brought by the Attorney-General, it was found that IPENZ had jurisdiction to investigate, hear and determine the complaint, despite Dr Reay's resignation.
15. An investigating committee of IPENZ completed its investigation of the complaint and referred it to a disciplinary committee on 9 May 2022. IPENZ appointed us, the Disciplinary Committee, on 27 June 2022. Following preparatory work and further court proceedings by Dr Reay, we heard the complaint on 4-6 December 2023 in Christchurch.
16. Having considered all of the evidence and submissions, we uphold the complaint.
17. We find that Dr Reay breached the Code of Ethics 1986 and that this breach constitutes grounds for discipline under rule 11 of the IPENZ Rules 2010.

¹ The CTV building was located at 247 Madras Street, Christchurch.

² Engineering New Zealand is the trading name for IPENZ. Engineering New Zealand is a nonprofit membership organisation and Registration Authority for chartered professional engineers in New Zealand. For further information about Engineering New Zealand, see [About us | Engineering NZ](#).

³ Canterbury Earthquakes Royal Commission "Final Report – Volume 6 – Canterbury Television Building (CTV)" (**CERC report**) (November 2012), <<https://canterbury.royalcommission.govt.nz/>>.

⁴ Mr Stannard raised the complaint on behalf of MBIE.

18. Specifically, we find that:
 - a. Mr Harding did not have the necessary experience to hold either substantial or sole responsibility for the CTV building design.
 - b. Dr Reay knew Mr Harding lacked the necessary experience to design the CTV building.
 - c. Dr Reay's supervision of Mr Harding during the CTV building design was inadequate.
 - d. Dr Reay's conduct fell well below the accepted professional standards in 1986.
 - e. Dr Reay's conduct was sufficiently serious to warrant discipline.
19. We acknowledge the tragedy of the CTV building collapse, the victims and their whānau. At the hearing, Maan Alkaisi presented via audio visual link (**AVL**) the CTV Family Group's submissions on the complaint. Those submissions are set out in full in the **Appendix** to this decision.

PROCEDURAL HISTORY

20. In October 2012, Mr Elms on behalf of himself and relatives of the CTV building victims raised a complaint with IPENZ. A few months later, in December 2012, Mr Stannard on behalf of MBIE raised a complaint. IPENZ combined the complaints into one complaint.
21. Following an initial investigation, the complaint was referred to an investigating committee for formal investigation (the **First Investigating Committee**). As part of its investigation, the First Investigating Committee interviewed Dr Reay who attended with his wife and counsel. The interview was held on 14 August 2013. On 28 February 2014, Dr Reay resigned his membership from IPENZ. The First Investigating Committee dismissed the complaint as it considered it no longer had jurisdiction to investigate it.
22. Mr Stannard and Mr Elms also raised a complaint with IPENZ about Mr Harding, which were dealt with together, in 2014.⁵ That disciplinary committee's decision was to discipline Mr Harding.⁶ The order imposed was publication of the decision.⁷
23. In March 2015, the Attorney-General commenced judicial review proceedings against IPENZ on its decision to close the investigation. On 7 December 2018, Collins J in the High Court set aside IPENZ's decision that the First Investigating Committee discontinue its investigation.⁸ On appeal by Dr Reay, on 2 October 2019 the Court of Appeal dismissed the appeal and confirmed that IPENZ had jurisdiction to investigate the complaint.⁹
24. On 15 May 2020, IPENZ appointed a second investigating committee (the **Investigating Committee**) to investigate the complaint. On 9 May 2022, the Investigating Committee issued its decision to refer the complaint to a disciplinary committee.
25. On 22 June 2022, IPENZ appointed us (the **Disciplinary Committee**) to hear the complaint.

⁵ *Elms & Stannard v Harding* 227-02 141003, 23 October 2014 (**DC Harding decision**).

⁶ At [6.52].

⁷ At [6.60].

⁸ *Attorney-General v Institution of Professional Engineers New Zealand Incorporated and Reay* [2018] NZHC 3211 (**AG v IPENZ & Reay**).

⁹ *Reay v Attorney-General* [2019] NZCA 475 (**Reay v AG**), at [49].

26. On 9 May 2023, Dr Reay brought an application for a judicial review of IPENZ’s decision. He sought that the current proceeding be stayed or dismissed because of procedural unfairness. On 2 October 2023, Radich J declined his application. Radich J found the disciplinary process should proceed.
27. In declining the application, Radich J stated “*For the reasons I have given, I am satisfied that in this case **it continues to be in the public interest to enable the Disciplinary Committee to consider the complaints substantively***”¹⁰ (emphasis added). Further, Radich J stated:
- Dr Reay had sufficient information to respond to the complaint in a fair and meaningful way, and there was no breach of the principles of natural justice;¹¹
 - Dr Reay was not prejudiced in his ability to respond to such an extent as to make it unfair for the process to continue;¹² and
 - the effect of the passage of time on Dr Reay’s conduct as measured against the professional standards in 1986 was for the Disciplinary Committee to determine.¹³
28. On 1 November 2023, Dr Reay made application to us for the disciplinary process to be discontinued. This application was for reasons primarily relating to the stress of the proceeding and his health. We considered the application and declined it on 30 November 2023.
29. We note that regarding this proceeding, Collins J in *AG v IPENZ & Reay* stated: ¹⁴

There may be valuable lessons to be learnt from an assessment of Dr Reay’s professional responsibilities in relation to the collapse of the CTV Building that can only be resolved through a disciplinary process.

THE INVESTIGATING COMMITTEE

30. On 15 May 2020, IPENZ appointed the Investigating Committee. The Investigating Committee was:
- Dr Wayne Stewart FEngNZ CPEng (Chair)
- Dr Sulo Shanmuganathan FEngNZ CPEng (Member)
- Julius Long CPEng CMEngNZ CPEng IntPE(NZ)/APEC Engineer (Member)
31. In summary, the Investigating Committee considered two aspects of the complaint: (a) whether Dr Reay knew Mr Harding lacked the necessary experience to design buildings of this type and knew this, but failed to adequately supervise him; and (b) whether Dr Reay exerted inappropriate pressure on the Christchurch City Council (the **Council**) to approve the design for the CTV building.
32. The Investigating Committee wanted to interview Dr Reay. He declined on 16 July 2021, claiming that he had procedural concerns about the investigation. Following receipt and consideration of Dr Reay’s submissions on 9 May 2022, the Investigating Committee issued its decision.

¹⁰ *Reay v IPENZ* [2023] NZHC 2750 (***Reay v IPENZ***), at [101].

¹¹ At [7(a)].

¹² At [7(b)].

¹³ At [7(b)].

¹⁴ *AG v IPENZ & Reay*, above n 8, at [121].

33. The Investigating Committee found no ground to dismiss the first aspect of the complaint. Accordingly, it determined the first aspect should be referred to a disciplinary committee. The Investigating Committee dismissed the second aspect of the complaint.
34. In deciding to refer the first aspect of the complaint, the Investigating Committee found:
- a. Dr Reay's decision not to review Mr Harding's design of the CTV building, or arrange for his work to be reviewed by another engineer, appeared inconsistent with the way other engineering firms operated at the relevant time;¹⁵
 - b. Had Dr Reay engaged with Mr Harding, there was a real opportunity that Dr Reay would have been able to counsel Mr Harding of the risks, to challenge his approach, seek advice from others, or arrange for the work to be reviewed;¹⁶ and
 - c. Dr Reay was responsible for ensuring Mr Harding was competent to design the CTV building. This responsibility was more than just considering Mr Harding's experience but extended to asking Mr Harding insightful questions during the design process about the approach being taken and the assumptions being made.¹⁷

THE DISCIPLINARY COMMITTEE

35. On 27 June 2022, IPENZ appointed the Disciplinary Committee to hear the complaint. Two of our members were practising as engineers in 1986. The Disciplinary Committee is:
- Andrew McMenemy FEngNZ CPEng (Chair)
Gordon Hughes FEngNZ CPEng IntPE(NZ) (Member)
Kevin Johnson FEngNZ (Ret.) (Member)
Dr Cordelia Thomas, Barrister and Solicitor of the High Court of New Zealand (Member)
David Naulls, nominated by Consumer New Zealand (Member)
36. We convened to hear the complaint at the Hagley Oval Pavilion in Christchurch on 4-6 December 2023. The hearing was held in public.
37. The hearing was attended by:
- The Disciplinary Committee and its legal advisors;
 - Dr Reay's counsel;
 - Mr Tim Farrant, on behalf of MBIE, as an observer;
 - Dr Alkaisy, the CTV Family Group representative via AVL and other CTV Family Group members;
 - Dr Wayne Stewart, the Investigating Committee representative, and its legal advisor;
 - Dr Andrew Buchanan CPEng DistFEngNZ and structural engineer, the Disciplinary Committee's expert witness;
 - Engineering New Zealand staff;

¹⁵ Investigating Committee decision dated 9 May 2022, at [228].

¹⁶ At [243].

¹⁷ At [242].

- Approved media; and
- Other members of the public.

38. Prior to the hearing, we circulated to the parties our disciplinary hearing procedure which confirmed amongst other things an inquisitorial, not adversarial approach to our proceedings.¹⁸ The Hearing Procedure was accepted by the parties.
39. Dr Reay was represented at the hearing by counsel. Neither he nor any of his witnesses attended the hearing. Dr Reay did not attend due to ill health. Mr Hanham did not attend due to being elderly and the media attention.
40. Dr Stewart presented a summary of the Investigating Committee's report and was questioned by Dr Reay's counsel and us. Dr Buchanan presented his evidence and was questioned by Dr Reay's counsel and us.

BACKGROUND

Dr Alan Reay

41. Dr Reay obtained a Bachelor of Engineering degree with First Class Honours in 1965 and a Doctor of Philosophy in Civil Engineering in 1970, both from the University of Canterbury.
42. In 1970, Dr Reay registered as an engineer under the Engineers Registration Act 1924 and became a member of IPENZ on 27 November 1970. He was elected a Fellow of IPENZ on 25 March 2002. He resigned his membership of IPENZ on 28 February 2014.
43. Prior to starting his own firm, Dr Reay worked for two years as a structural engineer at a structural engineering consultancy Hardie & Anderson. In 1971, Dr Reay started his own firm, ARCE.

Alan Reay Consulting Engineers

44. Initially ARCE was a small firm with one engineer, Dr Reay. Then another engineer, Mr Harding, was employed in 1978. Mr Harding left ARCE in 1980 and another engineer, John Henry, was employed. Mr Henry left ARCE in 1985 and Mr Harding was re-employed that same year.
45. In 1986, at the time the CTV building was designed and built, ARCE employed the following personnel: Dr Reay (sole principal and structural engineer); Mr Harding (structural engineer); Terry Horn (draughtsman); Wayne Strachan (draughtsman); and Shane Fairmaid (draughtsman).

David Harding

46. Mr Harding graduated from the University of Canterbury with a Bachelor of Engineering (Civil) degree with Second Class Honours in 1973. He became a registered engineer in 1976.
47. In 1978, Mr Harding was employed by ARCE as a civil and structural engineer. He left ARCE in or about May 1980 and was then employed by the Waimairi District Council as a design engineer for approximately five years. There he was mainly involved in civil engineering, including the design of

¹⁸ Amended Disciplinary Hearing Procedure dated 22 September 2023 (**Hearing Procedure**), at [29].

roundabouts and roads. He also undertook some structural engineering related to annual surveys and maintenance of bridges.

48. Mr Harding was re-employed by ARCE from November 1985 to 1988 and became an associate at ARCE on 1 April 1986.

Dr Reay and Mr Harding's experience in 1986

49. Dr Reay's experience in the design of multi-storey buildings in 1986 included three buildings in Christchurch: a six-storey concrete framed building on Liverpool Street, designed while working at Hardie & Anderson; a seven/eight storey concrete apartment block "Kamahi Towers" on Carlton Mill Road, designed in 1974 while he was at ARCE; and the eight-storey "Ibis House" on Hereford Street, also designed in 1974 while at ARCE.
50. With regard to the Ibis House design, the CERC report said Dr Reay worked with Dr Richard Sharpe.¹⁹ On such work it referred to Dr Reay having "*designed the foundations, stairs, the precast concrete fins and spandrels and the alternate precast concrete floor system*".²⁰
51. With regard to Dr Reay's experience with computer analysis of multi-storey structures, the CERC report said "*Dr Reay said in evidence that he has never used the ETABS computer program. However, in the 1960s he used software written by Dr Robert Donald for modal analysis of building structures.*"²¹
52. Mr Harding's experience in 1986 consisted of work on the following buildings:
- a. A twelve-storey concrete structure for Westpark on Cashel Street, Christchurch (the **Westpark Towers building**). This structural design work began in August 1985, some of which occurred also during the CTV building design. The preliminary design and computer analysis for the Westpark Towers building was completed by Mr Henry at ARCE. Dr Reay performed the final review of the building design and prepared and signed the design certificate.
 - b. A four-storey reinforced blockwork building with suspended concrete floors for the Hospital Board in Christchurch. Mr Harding took this work over from Mr Henry when he was re-employed by ARCE in 1985, working on it from December 1985.
53. Dr Reay described Mr Harding's qualifications and experience at the time of the CTV building design as follows:
- a. After graduating with honours from Canterbury University's School of Engineering (May 1973), he had been an engineer for 13 years;
 - b. He had seven years' experience as a structural engineer at Hardie & Anderson and ARCE from 1973 to 1980, followed by four and a half years as leader of the Waimairi District Council civil engineering team, before returning to ARCE;
 - c. He had been a registered engineer for 10 years (since 1976);
 - d. He had been accepted as a member of IPENZ;

¹⁹ CERC report, above n 3, at 50.

²⁰ At 50.

²¹ At 50.

- e. He was 35 years old;
 - f. He had become an associate at ARCE;
 - g. He had negotiated a salary package over 20% greater than that of his predecessor in the role, Mr Henry. This indicated his seniority and, accordingly, a high level of independence in his work;
 - h. He had attended key seminars before joining ARCE and in July 1986, while he was preparing the CTV building plans, he attended an intensive three-day seminar on “Design of Concrete Structures” which included specific reference to the 1982 Concrete Code;
 - i. He was allocated a senior draughtsman with extensive experience in working with engineers in the design of multi-storey buildings to assist with the project; and
 - j. He had only recently completed the twelve-storey Westpark Towers building design in respect of which no issues have ever been identified.
54. The CERC report said that *“during the period between Mr Harding’s return to ARCE in November 1985 and commencing work on the CTV Building in March 1986 [Dr Reay] was able to assess Mr Harding’s work and considered him to be a very competent structural designer who understood what he was doing, understood his limitations and understood the codes.”*²²
55. At his interview with the First Investigating Committee, when he talked about Mr Harding re-joining ARCE, Dr Reay said he was comfortable Mr Harding had the *“necessary experience or knowledge or understanding”*.²³ Dr Reay said Mr Harding was one of the most competent engineers he ever worked with, and he was confident Mr Harding knew his limitations. However, Dr Reay acknowledged the CTV building design was Mr Harding’s first involvement with a building of this scale.
56. The CTV building was an irregular building because it had an asymmetrical layout, as stated by Dr Buchanan, and shown on the architectural drawings. Dr Buchanan said *“the shear core which resists most of the lateral loads - it was not in the centre of the building, it wasn’t even in the building, it was outside the building - jutting out on the north wall of the building ...”*²⁴ Dr Buchanan also stated that the CTV building had high eccentricity. From Dr Buchanan’s evidence, we consider eccentricity means the difference between the centre of mass and centre of stiffness of the building in the design; and that the CTV building’s shear core represented its centre of stiffness. The CTV building was a 6-storey building.²⁵

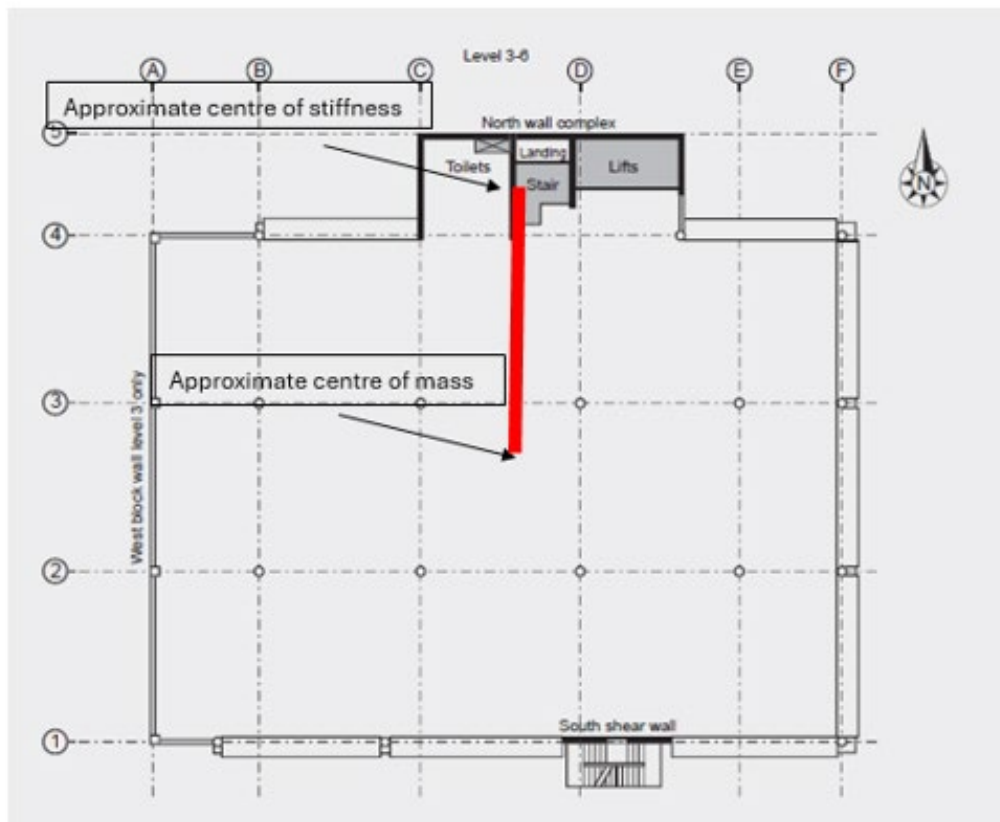
²² CERC report, above n 3, at 69.

²³ Transcript of meeting of Investigating Committee and Dr Alan Reay held 14 August 2013 (**IC meeting transcript**), at 76.

²⁴ Disciplinary Committee Hearing transcript (**Hearing transcript**), at 28.

²⁵ Dr Reay’s first affidavit dated 31 October 2023, at [29] and the Beca Ltd, *“CTV Building Collapse – Engineering Opinion Report”* (15 July 2016) (**Beca report**), <www.beca.com> at 21.

57. The below modified diagram of the CTV building layout from the CERC report²⁶ demonstrates its irregular shape and the red line illustrates the high eccentricity of the building. The shear core is shown and labelled as the North wall complex.



58. For the reasons above, we find the CTV building was an irregular, highly eccentric, multi-storey building.
59. In 1986, the Code of Practice for General Structural Design and Design Loadings for Buildings, NZS 4203:1984 applied (the **Code of Practice**). The Code of Practice said *“For irregular structures more than four storeys high, horizontal torsional effects shall be taken into account by the three-dimensional modal analysis method...”*.²⁷ From Dr Buchanan’s evidence, we consider torsional response means a twisting response.
60. The software program available for three-dimensional modal analysis in 1986 was Extended Three-Dimensional Analysis of building System analysis (**ETABS analysis**). This was located at the University of Canterbury, which ARCE had access to.²⁸ Dr Buchanan said ETABS analysis is used to understand how a building will behave when it is subjected to earthquake motions. We note in 1986, the analysis output would be in the form of a paper printout of numbers and tables, requiring the engineer to work out the model themselves.

²⁶ CERC report, above n 3, at 44.

²⁷ New Zealand Standard 4203, Code of Practice for General Structural Design and Design Loadings for Buildings 1984 (**Code of Practice**), refer cl 3.4.7.1(c).

²⁸ Brief of Evidence of David Harding dated 25 June 2012 (**David Harding’s evidence**), at [17].

61. Dr Reay recognised that ETABS analysis would be necessary for the CTV building design. Dr Reay said that at the time Mr Harding received the preliminary architectural drawings, he asked him (Mr Harding) about the CTV building layout.²⁹ Dr Reay said he identified the CTV building layout could create excessive torsional response.³⁰
62. In his evidence to the CERC, Mr Harding said he had not used ETABS before his second period of employment at ARCE.³¹ He said Dr Reay was aware of this.³² The CERC report said, that in taking over the Westpark Towers building design, Mr Harding also took over the ETABS model prepared by Mr Henry. However, Mr Harding said he had not been responsible for an ETABS analysis prior to the CTV building design. In contrast, at his interview with the First Investigating Committee, Dr Reay said the Westpark Towers building project demonstrated Mr Harding was able to undertake the detailed design and management of documentation including ETABS analysis. Dr Reay said Mr Harding received training on ETABS analysis from Mr Henry; however, the extent of that training is unknown.³³

Concept and design

63. The owner and developer of the CTV building was Prime West Corporation Limited (**Prime West**).
64. Prime West contracted Williams Construction (Canterbury) Limited (**Williams Construction**) to build the CTV building. An initial concept drawing for the CTV building was created by Michael Brooks, the Managing Director of Williams Construction. The concept was provided to Alun Wilkie of Alun Wilkie Associates, who undertook the architectural design for the building.
65. The architectural look of the CTV building was based on the design of a four-storey building at 299 Durham Street, Christchurch. This building was designed by Mr Wilkie.
66. ARCE was engaged by Williams Construction to be the structural engineer for the project in or around February 1986. Williams Construction had previously worked with ARCE. It liked ARCE's work and that Dr Reay would provide preliminary drawings for costing purposes without charge.³⁴
67. Dr Reay had a preliminary meeting with Williams Construction regarding the project. The structural design work for the CTV building was then offered to ARCE. Dr Reay's time recorded as billed to the CTV building design was approximately three hours.
68. There was a dispute between Mr Harding and Dr Reay about their respective involvement in the design. In his evidence to the CERC, Mr Harding said he considered that the building was designed by the both of them. Dr Reay disagreed.
69. The CERC report said that Mr Harding did not believe the responsibility for the design had been handed over to him by Dr Reay. Mr Harding's position was that he would not have taken the project on if he had been doing it on his own because it was beyond the limits of his competence. However, Mr Harding said he believed he was competent to design the building if someone was reviewing his work.

²⁹ CERC report, above n 3, at 60.

³⁰ At 60.

³¹ David Harding's evidence, above n 28, at [15].

³² At [15].

³³ We note the contemporaneous evidence comprises only one invoice, although Dr Reay claimed there were others.

³⁴ CERC report, above n 3, at 56.

70. At his interview with the First Investigating Committee, Dr Reay said he assigned Mr Harding as the engineer who would have responsibility for designing the CTV building. He said Mr Harding was more knowledgeable and experienced in this type of work and understood the concrete code better than Dr Reay did. Dr Reay said Mr Harding had a responsibility to bring to Dr Reay's attention any issues he had with his own work.
71. Mr Harding said that if he had any queries he would go and see Dr Reay, but accepted "he was not *calling out for supervision and review*".³⁵ The only conversation about the CTV building both Mr Harding and Dr Reay agreed occurred was the way the south shear wall came to be included in the design.³⁶ However, their recollections of the conversation differ.³⁷
72. There was also a dispute between Mr Harding and Dr Reay about whether the design of the CTV building was reviewed within ARCE before it was sent to Council. In his evidence to the CERC, and at his interview with the First Investigating Committee, Dr Reay said he relied on the Council's review of the work from his office.³⁸
73. There was no indication on the structural drawings for the CTV building that Dr Reay reviewed them prior to their submission to Council, nor evidence that a design certificate was provided. Dr Reay advised the CERC he did not check the CTV building design because he "*felt confident in the process that [he] was using for that project.*"³⁹

Supervision during construction

74. Under the contract for construction of the CTV building, ARCE was responsible for supervising the structural works. Mr Harding, not Dr Reay, visited the site during construction to undertake inspections.

Collapse

75. During the Christchurch earthquake on 22 February 2011 the CTV building collapsed. The collapse of the building resulted in the deaths of 115 people.
76. Several organisations and bodies reviewed the cause of the CTV building collapse. They included the Department of Building and Housing (now MBIE), a Royal Commission of Inquiry (the Canterbury Earthquake Royal Commission or **CERC**), and Beca on behalf of the New Zealand Police. The Royal Commission of Inquiry issued the CERC report. Beca and the New Zealand Police issued the Beca report.
77. In summarising parts of the Investigating Committee's report on the CERC and Beca reports, we refer to the reports that examined the cause of the collapse of the CTV building below. We note determining the cause of the CTV building collapse is outside the scope of the complaint.

³⁵ CERC report, above n 3, at 58.

³⁶ At 58.

³⁷ At 60.

³⁸ At 64; IC meeting transcript, above n 23, at 85.

³⁹ CERC report, above n 3, at 64.

CERC report

78. On 14 March 2011, the Governor-General appointed Justice Mark Cooper (Chair), Sir Ron Carter and Professor Richard Fenwick to the Royal Commission to inquire into the Canterbury Earthquakes.
79. The CERC inquiry began in April 2011 and was completed in November 2012. Part three of the CERC final report was delivered on 29 November 2012 and released by the government on 10 December 2012. It included the results of the investigation into the CTV building collapse.
80. The terms of reference were wide ranging, and required the CERC to inquire into:
 - a. Why the CTV building failed severely;
 - b. Why its failure caused such extensive injury and death;
 - c. Why it differed from others in the extent to which it failed;
 - d. The nature of the land associated with the building and how it was affected by the Canterbury earthquakes;
 - e. Whether particular features of the building contributed to the failure;
 - f. Whether as originally designed and constructed, and as altered and maintained, the CTV building complied with earthquake-risk and other legal and best-practice requirements that were current, both in 1986 when the CTV building was designed and constructed and on or before 4 September 2010 (the date of the first earthquake in the Canterbury Earthquake Sequence, near Darfield);
 - g. Whether prior to 4 September 2010 the CTV building had been identified as earthquake-prone or had been the subject of any measures to make it less susceptible to earthquake risk and, if it had, the compliance or standards this had achieved;
 - h. The nature and effectiveness of any post-earthquake assessments of the CTV building and any remedial work carried out on it after the 4 September and 26 December 2010 events; and
 - i. Any other matters arising out of, in relation to these issues, that came to the Royal Commission's notice that it considered it should investigate.
81. The CERC concluded in section 9.10 of its report that the below four features of the design and construction of the CTV building were major contributors to its collapse:
 - a. The failure to adequately consider seismic behaviour in the design of the beam-column joint zones;
 - b. The failure to provide adequate tie strength between the floors and the north wall complex;
 - c. Inadequate confinement of columns; and
 - d. The failure to identify clearly the need to roughen the interface between the ends of the precast beams and the insitu concrete in the columns.
82. Like the Investigating Committee, we acknowledge Dr Reay's objections to the inclusion of the CERC report in our decision. We accept it is opinion only, and we do not adopt its findings as our own. However, we consider it is relevant to state certain findings of the CERC as they formed the basis of the complaint.

83. In describing their findings on Mr Harding and Dr Reay's respective roles in the CTV building design, the CERC report said:⁴⁰

Mr Harding was working beyond his competence in designing the CTV building. He should have recognised this, given that he had never designed a building like this before. We also consider that Dr Reay should have realised that this design was pushing Mr Harding beyond his limits given his past experience. The design process led to a building that was under-engineered in a number of important respects.

84. The CERC report made the following further observations:

A number of the deficiencies in the design of the CTV building were what Dr Reay described in evidence as matters of "fundamental engineering". Much was made in the hearing about Mr Harding's lack of experience using the ETABS program, but these fundamental mistakes were not dependent on an ETABS analysis.⁴¹

Dr Reay's evidence was that if Mr Harding had come to him needing assistance he could not have been much help to him because he had no experience using ETABS. He said he would either have advised him to speak to someone at the University or to Mr Henry or to another engineer.⁴²

Mr Harding was working beyond his competence. That is a conclusion which follows from the fundamental design errors and areas of non-compliance we have identified... and is consistent with the evidence we heard from Mr Harding about the process he followed.⁴³

...there was no basis for Dr Reay to conclude that Mr Harding could simply take over the level of work Mr Henry had previously been doing unless there was appropriate supervision and mentoring by someone else within the firm who had the requisite level of skill and competence.⁴⁴

Dr Reay said he relied on Mr Harding's confidence that he could undertake the design and his belief that he could accomplish it. This was the only basis upon which Dr Reay could rely on Mr Harding, because he could not rely on his previous experience of designing multi-storey buildings. In the absence of that experience, we conclude that Dr Reay should have questioned the basis for that confidence. In any event, we do not accept that it was appropriate for Dr Reay to rely on Mr Harding's confidence that he could do the design and then leave him to it without putting any checks in place. As Mr Harding said in evidence, he did not know what he did not know, but if his work was being reviewed, some of the design issues that have now been identified may have been picked up while the design was being developed or at least before the plans left ARCE. While Dr Reay may not have been able to identify all of the defects in the building, counsel assisting submitted that he would have been capable of picking up the problem with the connection between the floor diaphragm and the north wall that was later identified, as he described this as "fundamental engineering" during the course of his evidence.⁴⁵

Dr Reay said in evidence that the only area where he thought Mr Harding was lacking was in using ETABS But having recognised Mr Harding's limitations in that area, Dr Reay made no further enquiry of Mr Harding during his ETABS analysis and did not review, or arrange for someone else to review, his work.⁴⁶

⁴⁰ CERC report, above n 3, at 71.

⁴¹ At 66. For detailed information on ETABS analysis, refer to the Design complexity section of this decision, at [111]-[122].

⁴² At 67.

⁴³ At 68.

⁴⁴ At 69.

⁴⁵ At 69.

⁴⁶ At 69.

During the design of the Landsborough House... [Mr Henry] was aware of the limitations of the ETABS program and did additional calculations to ensure he accurately calculated the corner deflections.⁴⁷

Mr Harding's evidence on this point illustrates his lack of experience with the ETABS program and most significantly, his lack of knowledge about its limitations...Because Mr Henry had been trained in the use of ETABS in an environment at Holmes Wood Poole and Johnstone where his work was monitored, he could carry out an ETABS analysis independently when he went to ARCE. Mr Harding did not have that experience.⁴⁸

Mr Henry was younger and had been an engineer for much less time than Mr Harding but had been designing challenging multi-level buildings since he graduated. The type of experience is the appropriate indicator of skill and competence rather than age or the number of years practising or registered...In contrast to Mr Henry, Mr Harding had not been involved in multi-storey building design prior to returning to ARCE in 1985...⁴⁹

85. On the internal review processes of ARCE, the CERC report said:⁵⁰

Dr Reay did not review the drawings or calculations for the CTV building before they went to the CCC. Presumably this is explained by his comment that he had seen Mr Harding's work previously and was satisfied that he had a good understanding of the design of structures. He said he relied on the CCC to review the design during the permit process. In adopting this position, Dr Reay stood apart from other structural engineers who gave evidence during the hearing. All of them referred to processes whereby the work would be reviewed by persons in their firms other than the person who had actually carried out the design. ... Dr Reay should also have been aware of Mr Harding's lack of experience relevant to the CTV design and the need for his work to be checked. We do not regard the small size of Dr Reay's firm at the time as entitling him to rely on the CCC to have the role of checking plans that should have been completely designed before being submitted for a building permit.

Beca report

86. Sometime after the CERC report, Beca was commissioned by the New Zealand Police to provide an opinion on structural engineering matters.⁵¹ This was part of the police investigation into the CTV building collapse and possible allegations of manslaughter. The Beca report provided a detailed assessment of the compliance of the CTV building design with the then current design standards and generally accepted design practice.
87. Beca interviewed eight engineers from eight consulting firms which operated in the mid-1980s. The interviews were conducted to assist Beca in determining accepted practice in 1986. Seven of the engineers interviewed by Beca were directors and one was an associate, in the mid 1980s. In the mid-1980s the engineers were employed by firms of varying size.
88. The interview questions related to practice in the mid 1980s and the early 1990s. They included questions about how the engineers ran their practice, including how work was allocated to staff, what procedures around supervision were employed and what their responsibilities were as a partner, director, owner, or senior engineer. The engineers' responses were set out in Appendix E "Interviews on Practice of the Day Generally accepted design practice" of the Beca report.

⁴⁷ CERC report, above n 3, at 66.

⁴⁸ At 59.

⁴⁹ At 66.

⁵⁰ At 70-71.

⁵¹ Beca report, above n 25.

89. The Investigating Committee sought from the police, and was provided with, the unredacted responses of five of the engineers. In his evidence for the disciplinary hearing, Dr Reay provided an unredacted response from another engineer who had been interviewed, Warren Lewis. His response included additional questions the police asked Mr Lewis during their investigation and his answers.
90. The unredacted responses before us were from Mr Lewis, Peter Smith, Ray Patton, Dave Brunson, Russell Poole, and Barry Brown. We consider Mr Lewis's and Mr Smith's firms were "small" in the mid 1980s.
91. We completed our own analysis of the key points and themes in the eight responses. We note the responses referred to directors, but Dr Reay was a sole principal. For the purposes of this report, we consider the role of a director and principal to be substantially the same. The conclusions from our analysis are set out as follows:
- a. Although team structures varied, all of the engineers considered a director or senior engineer would be in charge of the project.
 - b. All of the engineers considered ultimate responsibility for the design lay with the director, partner, or principal of the firm. There was a theme that it was the director's responsibility to ensure quality and accept the consequences of failure. All of the engineer's agreed the buck stopped with the director. Mr Lewis said he felt the weight of responsibility that no one was hurt due to a design carried out in his name. Another engineer said (in their redacted response) *"If you don't have a reputation for quality, you don't have a firm at all."*⁵² Mr Smith said the concept of responsibility was much stronger in the 1980s. He said a director could not be seen to take on a job they weren't experienced in or allocate it to an unsuitably experienced staff member.
 - c. All of the engineers considered there was interaction in the form of active involvement between the design engineer and director or overseeing senior engineer throughout the project. Mr Patton said the director would be actively involved, regardless of the design engineer's experience.
 - d. All but one engineer placed little or no reliance on the council consent review process. The main reason for this was the view that the relevant council was not competent in structural design checking. In contrast, Mr Brown said his firm placed reliance on the council because it had a good reputation.
 - e. Five engineers considered there was an experience – supervision correlation. Three engineers considered there was a checking or supervision – project complexity correlation. Mr Smith considered there was a checking and/or supervision – project complexity – team experience correlation.
 - f. Four engineers considered directors were often involved in general checks of work or checks of critical elements of work to ensure they were correct. Three engineers considered the director was required to check drawings as per boxes on the drawings. Two engineers considered more complex projects often involved regular discussion between the director and design engineer. Mr Poole said the director of his firm started out checking all calculations, but this became less common as time went on. He said that although the director stopped reviewing all calculations,

⁵² Beca report, above n 25, at E36.

they continued to supervise and check drawings. Mr Smith said that since drawings were hand-produced in the 1980s, it was easier to keep an eye on drawings as they were produced. He said he would review drawings to gain an appreciation of how the structure worked, and, if necessary, look at calculations to drill down into specific details. Mr Lewis said it would not be common nor usual for an engineer to be assigned to the design of a multi-storey building without any oversight.

- g. On questions about whether directors reviewed drawings before they were issued and who was responsible for signing them, responses varied. Some engineers said the director reviewed and signed them, while others said other staff reviewed and signed them. Mr Smith said directors were required to sign the design certificate.

92. The Beca report stated:⁵³

Dr Reay chose to delegate the design to Mr Harding who had not previously undertaken design of structures of this type. He failed to ensure that adequate experience or oversight, review and checking were applied to the design, with the result that errors in the building design were not identified. A suitably experienced designer would not have made the errors that Mr Harding did, or adequate oversight, review and checking of the design concept and detailing by a suitably experienced engineer would have identified and corrected them. The lack of either was not in accordance with the accepted practices of the day. Dr Reay's reliance on the consent checking process to identify errors was also not in accordance with the accepted practice of the day.

His failure to allocate a sufficiently experienced engineer to the design of the building and to provide any form of checking or review of Mr Harding's work, were, in combination, major omissions by Dr Reay to discharge his duty as a consulting engineer undertaking the design of a significant building. His approach to these responsibilities, was a major departure from the expected standard of the day.

INFORMATION GATHERED

- 93. We have considered an extensive amount of information gathered in this proceeding.
- 94. This includes various documents from Dr Reay, including his interview with the First Investigating Committee on 14 August 2013; his first and second affidavits dated 31 October 2023 and 1 November 2023; affidavits provided from: Noel Hanham dated 21 November 2023, Wendy Duff dated 27 November 2023, Dr Andrew Gillespie dated 1 November 2023, Ella Hawkey D'Aeth dated 2 November 2023, Barry Ramsay dated 5 August 2013, and Gerald Coates dated 12 August 2013; Dr Reay's written responses to our written questions dated 6 December 2023 (**Dr Reay's response**), and submissions made by Dr Reay's counsel.
- 95. We have also considered the Investigating Committee's report. We have considered further information gathered during our investigation, including Dr Buchanan's first statement dated 4 May 2023, his supplementary statement dated 1 December 2023, and his oral evidence given at the hearing.
- 96. In addition to the CERC and Beca reports, we have considered a number of other reports, including:
 - a. The Holmes Consulting Group (**HCG**) pre-purchase review of the CTV building for the Canterbury Regional Council dated January 1990;

⁵³ Beca report, above n 25, at 62.

- b. The Department of Building and Housing CTV Collapse Investigation report, dated 25 January 2012;
- c. The Department of Building and Housing: Expert Panel Report – Structural Performance of Christchurch CBD Buildings on 22 February 2011 Aftershock dated February 2012; and
- d. The Structural Engineering Society New Zealand Inc (**SESOC**): Collapse of the Canterbury Television (CTV) Building report, dated April 2020.

PRELIMINARY EVIDENTIAL MATTERS

- 97. Dr Reay, as he did during the Investigating Committee’s investigation, has objected to much of the evidence before the Disciplinary Committee, including the CERC and Beca reports.
- 98. Dr Reay says we should not consider or rely on the CERC or Beca reports. He says, amongst other things, findings of commissioners are expressions of opinion and cannot be admitted in legal proceedings as evidence. He makes this comment by reference, amongst other things, to the Court of Appeal majority in *Re Erebus Royal Commission; Air New Zealand Limited v Mahon (No 2)*, as well as *APN New Zealand Ltd v Simunovich Fisheries*.⁵⁴
- 99. Clause 18(h) of the IPENZ Disciplinary Regulations 2012 says we may receive any evidence we think fit, providing we observe the requirements of natural justice. Accordingly, the Disciplinary Committee is not bound by the rules of evidence in the Evidence Act 2006.
- 100. In relation to the ‘any evidence’ rule in the health disciplinary context, Clifford J on behalf of the Court of Appeal in *PCC v Health Practitioners Disciplinary Tribunal* stated:⁵⁵

That general admissibility standard [the receive any evidence thought fit rule] is broad and reflects the principal purpose of the Act, of protecting the health and safety of members of the public by providing for mechanisms to ensure that health practitioners are competent and fit to practise their professions.

- 101. McGrath J on behalf of the Supreme Court in *Z v Dental Complaints Assessment Committee* stated:⁵⁶

The purpose of disciplinary proceedings is materially different to that of a criminal trial. It is to ascertain whether a practitioner has met appropriate standards of conduct in the occupation concerned and what may be required to ensure that, in the public interest, such standards are met in the future. The protection of the public is the central focus. Protection is a less prominent factor in the criminal process. One consequence of this difference is that the disciplinary process may cover much wider ground than that litigated at the criminal trial.

- 102. In considering the issue, the Investigating Committee stated:

32. The IPENZ Disciplinary Regulations state we can receive any evidence we think fit. Accordingly, we are not necessarily bound by the rules of evidence in the Evidence Act 2006. The purpose of the Reports was to determine the cause of the collapse of the CTV Building. That question is not the question we are directed to consider. To the extent the Reports make findings of fact or come to conclusions on the topic of the cause of the collapse, we agree these are expressions of opinion, and do not consider these or adopt these findings

⁵⁴ *Re Erebus Royal Commission; Air New Zealand Limited v Mahon (no 2)* [1981] 1 NZLR 618 at 653; *APN New Zealand Ltd v Simunovich Fisheries* [2009] NZSC 93; [2010] NZLR 315 at [34].

⁵⁵ *PCC v Health Practitioners Disciplinary Tribunal* [2020] NZCA 435 at [47(c)].

⁵⁶ *Z v Dental Complaints Assessment Committee* [2008] NZSC 55 at [128].

or conclusions. Where the Reports make findings on issues which are not directly related to the cause of collapse of the CTV Building, we have taken those findings into account, along with all the other information we have been provided with in investigating the complaint, particularly Dr Reay's submissions. We note we also refer the Reports for matters of context and history.

33. While we have referred to the Reports in our decision, as above, we have not adopted any of their findings or conclusions.

103. We agree with the Investigating Committee's reasoning above, and adopt the same approach. We consider the CERC and Beca reports are evidence we can consider in determining the complaint. Like the Investigating Committee, we have not adopted the findings or conclusions of these reports.
104. We have analysed the written responses of the eight engineers interviewed by Beca and have made our own conclusions on the standards of the day. Dr Reay put forward to us Mr Lewis's response to the Beca and police interview questions. This shows Dr Reay placed weight on some of the information in those documents, and we see no reason to disregard the remainder of the information.

THE ROLE OF THE DISCIPLINARY COMMITTEE

105. Professional disciplinary processes primarily exist to protect the public, uphold professional standards, and maintain public confidence in the profession and its regulation. They do this by ensuring members of the profession adhere to certain accepted professional standards.⁵⁷
106. Our role in this proceeding is, as soon as practicable, to hear the complaint and decide whether there are grounds for disciplining Dr Reay; and if so, whether to order any penalty.⁵⁸ If we decide there are no grounds to discipline Dr Reay, we must dismiss the complaint.⁵⁹ If we decide there are grounds to discipline Dr Reay, we must decide whether and how to exercise our powers under rule 11 of the IPENZ Rules 2010, including imposing a penalty.⁶⁰

ISSUES TO DETERMINE

107. In deciding the complaint, we consider it is necessary for us to determine:
- Did Mr Harding have the necessary experience to design buildings of this type? By buildings of this type we mean irregular, highly eccentric, multi-storey buildings. This involves us considering the complexity of the CTV building design and Mr Harding's relevant experience when he undertook the design in 1986.
 - If Mr Harding lacked the necessary experience to design buildings of this type, did Dr Reay know this?
 - Was Dr Reay's supervision of Mr Harding during the CTV building design adequate? This involves us considering Dr Reay's level of supervision of Mr Harding during the design and the generally accepted professional standards in 1986.

⁵⁷ *Dentice v Valuers Registration Board* [1992] 1 NZLR 720 (HC).

⁵⁸ The Institution of Professional Engineers New Zealand Disciplinary Regulations 2012 (**Disciplinary Regulations**), cl 17(1).

⁵⁹ Clause 17(2).

⁶⁰ Clause 17(3).

- d. If Dr Reay's conduct fell below the accepted professional standards in 1986, should we discipline him? This involves us considering if his conduct was sufficiently serious to warrant discipline.⁶¹
108. For convenience, we address issues (c) and (d) in the same section. We note the accepted professional standards refer to the applicable practice in 1986. To determine if Dr Reay met these standards, we consider the accepted practice of his peers in the mid 1980s.

DR REAY'S POSITION

109. Dr Reay denies the complaint against him. In particular, he denies that he knew Mr Harding was not competent to carry out the CTV building design and that he did not provide adequate supervision to Mr Harding during the design.
110. Dr Reay says the complaint should be dismissed for reasons including:
- a. There is insufficient evidence to provide a factual basis to the complaint.
 - b. There was no relevant supervision standard requiring supervision of a senior registered engineer (such as Mr Harding) in 1986.
 - c. If a supervision standard requiring supervision of senior registered engineers existed (which he denies), he provided adequate oversight to Mr Harding such that any obligation was discharged.
 - d. It is no longer practicable nor desirable for the Disciplinary Committee to hear the complaint because of the delay between the alleged conduct and the hearing, of almost 40 years, and procedural failings by IPENZ have caused significant prejudice to him.

DID MR HARDING HAVE THE NECESSARY EXPERIENCE TO DESIGN BUILDINGS OF THIS TYPE?

Design complexity

111. The complexity of the CTV building design was covered in detail in the CERC report, and Dr Buchanan's evidence. As we have found, the CTV building was an irregular, highly eccentric, multi-storey building.
112. Dr Buchanan's evidence was that, in accordance with the Code of Practice in effect at the time,⁶² special attention needed to be applied to irregular buildings. Dr Buchanan said that as a building becomes taller and more complex, more eccentric, and more unusual with difficult load paths in the building, a lot more effort needs to go into the analysis and the design.
113. Clause 3.4.7.1(c) of the Code of Practice said "*For irregular structures more than four storeys high, horizontal torsional effects shall be taken into account by the three-dimensional modal analysis method...*". Dr Reay recognised ETABS analysis would be necessary for the CTV building design. Mr Harding carried out the analysis using the ETABS analysis program at the University of Canterbury. We note Dr Buchanan's evidence that in the 1980s, ETABS analysis was new.

⁶¹ Disciplinary Regulations, above n 58, cl 17(3); *Robinson v RA*, (10 July 2015, Appeal Ruling #29) Chartered Professional Engineers Council (*Robinson v RA*), at [40(e)].

⁶² Code of Practice, above n 27.

114. In his evidence, Dr Buchanan said *“that understanding how this computer [program worked] – what input to put into the computer program and understanding the output – it was not easy ...”*.⁶³ He said the CTV building was a *“complex building”*,⁶⁴ *“highly eccentric ... which would require a more complex interpretation of the ETABS results for torsional response before carrying out the design”*.⁶⁵
115. Dr Buchanan said, *“In structural engineering when designing buildings, the starting point wherever possible is to keep a building symmetrical, so [its] centre of mass and stiffness is appropriate.”*⁶⁶ Dr Buchanan said that where a building has its centre of stiffness at its edge and its centre of mass at its centre, a round motion and combination of shaking in different directions will occur in an earthquake. Dr Buchanan said the shear core of the CTV building was outside the building, jutting out on the north wall of the building. He said that due to this, when there was shaking in one direction, the building was much more prone to twisting. Dr Buchanan said what makes this more complicated is that in a multi-storey building there is not just one period of vibration. He said there is 5, 10, or 20 periods of vibration, as well as torsional and natural modes of vibration.
116. Dr Buchanan said, *“... if the nature of the ground motion is such that there is a dynamic response then there is more and more shaking, which is a very dangerous situation for a building and it means the building has to be strong enough.”*⁶⁷ He said the engineer must clearly identify which elements of the building are weak and intended to suffer damage and yield, and which are strong enough so there will be no damage. From this evidence, we consider that the higher the eccentricity of a building, the greater the torsional (i.e. twisting) response of the building in an earthquake. As a result, we consider that where a building has greater torsional response, the engineer must put adequate reinforcement into the building in the design. We consider such reinforcement is important to give strength to the building. We consider this will allow the building to withstand the actions applied to it and ensure its structural stability in an earthquake. Dr Buchanan said that often the design of the elements of a building is done more often by hand calculations, using a lot of engineering judgement. We agree with Dr Buchanan's view on this.
117. Dr Buchanan said that when an engineer is presented with a building by the owner or architect, the first question is:⁶⁸
- ... what is the seismic engineering concept and how is this building going to resist lateral loads [north south] direction [east west] direction and will there be or will there not be a significant problem with torsion and twisting of the building?
118. Dr Buchanan said that the highly eccentric CTV building would require a more complex interpretation of the ETABS output for torsional response before carrying out the design than a regular symmetrical building such as the Westpark Towers building.
119. Dr Buchanan said that for a regular building, such as the Westpark Towers building, design is generally a simple operation. He said this is because the building will move horizontally with a minimum amount of twisting in an earthquake. Dr Buchanan said that for an irregular, highly eccentric, multi-storey

⁶³ Hearing transcript, above n 24, at 48.

⁶⁴ At 26.

⁶⁵ Dr Andrew Buchanan's supplementary statement dated 1 December 2023 (**Dr Buchanan's supplementary statement**), at [4(d)].

⁶⁶ Hearing transcript, above n 24, at 25.

⁶⁷ At 28.

⁶⁸ At 26.

building, such as the CTV building, the design is much more difficult. He said that when a building is excited in a torsional direction in an earthquake, there is much less certainty about what will happen to it. Dr Buchanan said once the ETABS analysis output is produced, the engineer would need to carry out a complex interpretation of that output. He said that when the building started to twist (in the analysis model), the engineer couldn't use the ETABS output directly for the beams and columns because it (the model) would not take into account the twisting. Dr Buchanan said such interpretation required significant engineering judgement and experience. Dr Buchanan said the engineer would need to go through the output, member by member, to assess the applied actions on each member. Dr Buchanan said such interpretation involved the engineer determining how much reinforcement would be needed. From this evidence, we consider the purpose of this complex interpretation was to allow the engineer to identify where additional and the appropriate amount of reinforcement for the building was required in the design.

120. We agree with Dr Buchanan that the CTV building was not comparable to the Westpark Towers building. As Dr Buchanan said, the Westpark Tower's building was "*a regular symmetrical building*"⁶⁹ which was "*a relatively simple building to design*".⁷⁰ We agree with Dr Buchanan that, "*for a symmetrical building like the Westpark tower building – the ETABS analysis can be used more or less directly,*"⁷¹ whereas, "*the ETABS analysis for a building like the CTV building is much more difficult because of the twisting of the building*".⁷² We agree with Dr Buchanan that designing a building to resist earthquake loads is not a simple matter.
121. We agree with Dr Buchanan's observation that in the 1980s, the fundamental principles of earthquake engineering design were: for a minor earthquake there should be no damage, for a moderate earthquake there should be repairable damage, and for a major earthquake there should be no loss of life.⁷³
122. We agree with Dr Buchanan's evidence that the CTV building was a complex, highly eccentric, irregular, multi-storey building, involving what we regard as complicated design work. As a result, we find the CTV building design was more complex than the Westpark Towers building design.

Mr Harding's relevant experience at the time

123. Mr Harding's relevant experience when he undertook the CTV building design in 1986 is set out above in more detail from paragraph 48.
124. Mr Harding's relevant experience included: a concrete and steel, single storey retail store in Blenheim in 1979; a four-storey reinforced blockwork building with suspended concrete floors for the Hospital Board in Christchurch (which he took over from another engineer when re-employed by ARCE in 1985, working on it from December 1985); testing for fiberglass trickling filter cover in 1985 and 1986; and the Westpark Towers building (a twelve-storey concrete structure) on Cashel Street, Christchurch. The Westpark Towers building design began in August 1985, with the preliminary design and ETABS

⁶⁹ Dr Buchanan's supplementary statement, above n 65, at [4(d)].

⁷⁰ At [4(d)].

⁷¹ Hearing transcript, above n 24, at 48.

⁷² At 48.

⁷³ As taught by Professor Tom Paulay, a former professor at University of Canterbury School of Engineering.

analysis completed by Mr Henry, previously employed at ARCE. In our proceeding, the main relevant experience of Mr Harding that Dr Reay referred to was the Westpark Towers building.

125. In his written response to our questions, without any explanation then or since as to why he considered the CTV and Westpark Towers buildings were of equal complexity, Dr Reay said “*the [CTV and Westpark] buildings were different but equally complex*”.⁷⁴ We disagree. No reliable evidence before us supports this. The CTV building was an irregular, multi-storey building with high eccentricity, and of significantly more complex design compared with the Westpark Towers building, which was a regular building. On the complexity of the CTV building design, we prefer Dr Buchanan’s more detailed evidence. We note Dr Buchanan’s evidence on design complexity is consistent with the CERC report’s findings regarding the CTV building design.

Did Mr Harding have the necessary experience to design the CTV building?

126. Based on the evidence, prior to designing the CTV building, Mr Harding: had not designed a building of similar complexity to the CTV building; had not been responsible for producing a detailed design, drawings, and specifications for a building of similar complexity to the CTV building; had no prior experience of using or being solely responsible for ETABS analysis for a building of similar complexity to the CTV building; and had not overseen the construction of a building of similar complexity to the CTV building.

127. As to Mr Harding’s lack of experience with ETABS analysis, Dr Buchanan stated:⁷⁵

... what input to put into the computer program and understanding the output – it was not easy and then when the building started to twist – in order to use the output from the program you couldn’t just use it directly for the beams and columns because you then had to take into account that the twisting of the building and then the displacement at the outer edges of the building would be double the displacement at the centre of mass and just to interpret all that stuff is something that only comes with experience – I guess what I’m saying is that unfortunately [...] – because this was the first time [Mr Harding had] done it – he would have been looking for guidance.

128. We find that in 1986, Mr Harding did not have the necessary experience to design or have sole responsibility for the design of the CTV building, or a building of its type.
129. We note our view is consistent with Mr Harding’s evidence before the CERC. That evidence was that he considered he was not competent to undertake the CTV building design without supervision by an engineer with experience in the design of multi-storey buildings. His view is consistent with our findings.⁷⁶

⁷⁴ Dr Reay’s written response to Disciplinary Committee questions dated 6 December 2023 (**Dr Reay’s written response**), at [6].

⁷⁵ Hearing transcript, above n 24, at 48.

⁷⁶ CERC report, above n 3, at 65.

DID DR REAY KNOW MR HARDING LACKED THE NECESSARY EXPERIENCE?

130. As set out in more detail above at paragraphs 49 to 51, Dr Reay said he believed in 1986 that Mr Harding had the experience to design the CTV building, for reasons including that Mr Harding: had a good level of education; became a registered engineer in 1977; was a full member of IPENZ and was a senior engineer; was employed at Dr Reay's firm between 1979-1980 and from 1985 onwards; designed the Farmers building in Blenheim; worked on the Westpark Towers building; received some ETABS training from Mr Henry after Mr Henry left ARCE; had a high salary (commensurate with a senior experience level); was preparing the design and documentation for the building permit for the CTV building at the same time he attended a three-day seminar regarding the design of concrete structures from 9-11 July 1986; and he believed Mr Harding would seek assistance if he struck any issues with the CTV building design. Dr Reay also referred to the CERC report, that found Mr Harding misrepresented his level of experience to Dr Reay.
131. We have carefully considered the reasons Dr Reay offered for his belief that Mr Harding had the necessary experience. We do not find them credible as they are either irrelevant to the design of a building as complex as the CTV building or they relate to training rather than experience. We consider an engineer's title and salary irrelevant factors to determining competence to undertake a design. We find that Dr Reay knew Mr Harding lacked the necessary experience to design the CTV building, because:
- a. Dr Reay knew Mr Harding had not undertaken the design of a building of similar complexity to the CTV building.
 - b. Dr Reay knew Mr Harding had not been solely responsible for producing a detailed design, drawings, and specifications for a building of similar complexity.
 - c. Dr Reay knew Mr Harding had not been responsible for an ETABS analysis of any building let alone a building of complexity of the CTV building. Dr Reay recognised himself that ETABS analysis was an area of development for Mr Harding.
 - d. Dr Reay knew Mr Harding had not overseen the construction of a building of the scale or complexity to the CTV building.
132. In all the circumstances, we find that Dr Reay knew Mr Harding lacked the necessary experience to design the CTV building.
133. We note our view is consistent with a number of Mr Harding's statements in his response to the complaint against him, and in the CERC's inquiry.

DID DR REAY FAIL TO ADEQUATELY SUPERVISE MR HARDING AND DID HIS CONDUCT FALL BELOW THE ACCEPTED STANDARDS IN 1986?

The applicable law

134. To determine the complaint, we must determine if a ground of discipline applies to Dr Reay's conduct, in accordance with the IPENZ Rules 2010 and Disciplinary Regulations 2012. These rules and regulations apply because the complaint was raised in 2012.
135. We must measure Dr Reay's conduct against the IPENZ Rules 1986 and Code of Ethics 1986 which were in force at the time the CTV building was designed in 1986.⁷⁷
136. The current rules and regulations govern the way in which the disciplinary process to determine the complaint against Dr Reay must proceed.⁷⁸
137. Rule 3 of the IPENZ 2010 Rules says the object of IPENZ is "*the advancement of the professions of engineering*" which includes representing the engineering profession, contributing to the development and recognition of good engineering practice, and contributing to meeting the needs of the community.
138. Rule 18 of the IPENZ Rules 1986 sets clear standards for professional conduct and discipline. Rule 18.2 states:
- Each member shall so conduct [themselves] as to uphold the dignity, standing and reputation of the Institution and of the profession and with due regard to the public interest, especially in matters of health and safety. Each member, at [their] level of engineering activity, shall exercise [their] professional or technical skill and judgment at least according to the normally accepted standards of the profession and to the best of [their] ability, and shall discharge [their] professional and technical responsibilities with integrity.
139. The Code of Ethics 1986 prescribed a set of provisions in furtherance of the terms in rule 18.2. Provisions 1 and 8 of the Code of Ethics 1986 stated:
1. Each member shall exercise [their] professional and technical skill and judgement to the best of [their] ability and shall discharge [their] professional and technical responsibilities with integrity.
- ...
8. However engaged, [they] shall at all times recognise [their] responsibilities to [their] employer or client, others associated with [their] work, the public interest and [their] profession.
140. Dr Reay says there is no express supervision requirement in the Code of Ethics 1986, nor can it be interpreted as implying a supervision requirement. Dr Reay says that while Radich J indicated a supervision obligation could be implied, his statement was incidental to his Honour's reasons for deciding the case. Dr Reay says that as such this statement cannot be relied on by the Disciplinary Committee.⁷⁹

⁷⁷ *Reay v IPENZ*, above n 10, at [26]; *Reay v AG*, above n 9.

⁷⁸ *Reay v IPENZ*, above n 10, at [34].

⁷⁹ Dr Reay's closing submissions dated 12 December 2023 (**Dr Reay's closing submissions**), at [53]; *Reay v IPENZ*, above n 10, at [65]-[66].

141. In his evidence, Dr Reay provided excerpts from 1986 IPENZ Professional Handbook (the **handbook**). He said the handbook set out express supervision requirements for junior engineers. He said that as the handbook did not provide any express supervision requirements for senior engineers, no such requirement existed. We do not accept this. We consider the handbook, which we agree applied to the working relationship between a junior and senior engineer, to be irrelevant here, because Dr Reay and Mr Harding’s relationship was that of two senior engineers.

142. We find it helpful to set out Radich J’s decision in more detail. Radich J stated:⁸⁰

[65] Clauses 1 and 8 of the 1986 Code of Ethics – reproduced at [30] above – required, in 1986, members to exercise their professional and technical skills and judgment to the best of their ability and to discharge their professional and technical responsibilities with integrity. They required engineers to recognise responsibilities to those associated with their work and in the public interest.

[66] While it is correct that the 1986 Code did not refer directly to supervision as the 1996 Code did, it is in my view implicit in the words of the provisions. A member operating a business that employs other engineers will, if they are to act professionally and with integrity, and if they are to recognise their responsibilities in the public interest and to their profession, supervise those employees.

[67] The 2016 Code does not refer expressly to supervision in a broad sense either but, again, it is implicit in the provision that I mention in [32] above.

[68] Alongside cls 1 and 8 of the Code of Ethics, r 18.2 of the 1986 Rules describes the standard against which the Disciplinary Committee will measure Dr Reay’s conduct. Under that rule, members are to conduct themselves as to uphold the dignity, standing and reputation of the Institution and the profession with due regard to the public interest, especially in matters of health and safety. Equally importantly under that rule, each member is to exercise professional or technical skill and judgment “at least according to the normally accepted standards of the profession and to the best of his ability”.

[71] Accordingly, it is for the Disciplinary Committee to determine, based upon evidence of the nature of Dr Reay’s practice in 1986, whether his peers would regard that conduct as being in line with generally accepted standards of the profession at the time in accordance with r 18.2 and the relevant provisions in the Code of Ethics. I do not see there to be any procedural flaw in that approach.

143. We agree with the High Court. For an engineer in a principal’s position to act professionally and with integrity, to recognise their responsibilities in the public interest and to their profession, they must supervise their employees.

144. The legal test to assess whether Dr Reay acted in accordance with acceptable professional standards in 1986 is whether the engineer acted in accordance with what a reasonable body of their peers would have done in the same situation. The assessment of whether an engineer has acted in accordance with accepted standards may be informed by whether reasonable members of the public would “*consider such an act or omission, if acceptable to the profession, were to lower the standard of that profession in the eyes of the public*”.⁸¹

145. It is therefore our role to determine, based on the evidence of Dr Reay’s practice in 1986, whether his peers would regard his level of supervision of Mr Harding during the CTV building design in line with

⁸⁰ *Reay v IPENZ*, above n 10, at [65]-[68] and [71].

⁸¹ *Robinson v RA*, above n 61, at [40(b)].

generally accepted standards of the profession at the time. We must determine this in accordance with rule 18.2 of the IPENZ Rules 1986 and the relevant provisions in the Code of Ethics 1986.

The level of supervision in 1986

146. To determine the level of supervision required in 1986, we must consider the generally accepted practice of the day in 1986. This involves us considering how a typical consulting engineering firm was run, the role of the firm principal, how the engineer who carried out the work was supervised, and how work was reviewed before it was finalised.
147. We have reviewed evidence and submissions on the generally accepted standards of the profession on supervision in 1986, in particular:
- a. Dr Reay's submissions and evidence, in particular, his interview with the First Investigating Committee on 14 August 2013, his first and second affidavits dated 31 October and 2 November 2023, and Dr Reay's written response to our questions on 6 December 2023.
 - b. Dr Buchanan's first statement dated 4 May 2023 and his supplementary statement dated 1 December 2023.
 - c. The affidavits of Mr Noel Hanham, Mr Barry Ramsay, Ms Wendy Duff and Mr Gerald Coates provided by Dr Reay.
 - d. Appendix E of the Beca report dated 15 July 2016, compiling responses from eight consultant engineers from eight firms interviewed by Beca and Ms Duff's affidavit, in particular, the unredacted responses of six engineers interviewed by Beca.
148. We agree with the writer of the Beca report that:⁸²
- Recollecting how things were done 25 to 30 years ago, and particularly during the 1980s, is naturally challenging. It is important, as far as possible, individual's recollections are not unduly influenced by the benefit of hindsight. Furthermore, there is a risk individuals will be inclined to recollect on the basis of what should have been the case, rather than what was actual practice at the time.
149. There was an extensive amount of expert evidence before us, most by affidavit and some of which was provided in 2013, when the first investigation commenced.
150. Dr Reay said that he was unable to attend the hearing in person or via AVL as he was medically unfit, and that we could not criticise his absence from the hearing. Out of fairness, while it would have been helpful to question him in person, we were prepared to proceed on that basis. Dr Reay responded to our questions in writing after the hearing.
151. Only Dr Buchanan gave evidence in person at the hearing on the issue of supervision, for which he was questioned at some length. Notably, Dr Reay's witness, Mr Hanham, did not attend the hearing in person or via AVL. Mr Hanham's reason for his non-attendance was due to him being elderly and in view of the hearing having considerable media attention.
152. We summarise some of the key evidence below.

⁸² Beca report, above n 25, at 14.

153. At his interview with the Investigating Committee on 14 August 2013, Dr Reay said he regarded Mr Harding as a senior and responsible staff member. When asked about the practice within ARCE of working together, Dr Reay said that in signing off a project an engineer takes responsibility for the work he has done. Dr Reay said two people cannot be responsible for a job. He said the day he starts checking the work of others it would relieve them of that responsibility and that he did not think that was right. Dr Reay was asked whether he had had any involvement in checking the design work undertaken by Mr Harding. Dr Reay said he was not designing the building, and therefore he did not consider this was his responsibility.⁸³ Dr Reay said, in his view, responsibility for checking lay with the Council as they had the resources to do this.
154. In his affidavit for this proceeding, Dr Reay said: he did not get the impression that Mr Harding had any difficulty in undertaking the structural design work; Mr Harding in the CERC hearing said he considered he was competent to design every aspect of the CTV building; Mr Harding's salary at ARCE in 1985 reflected the senior position that he was appointed to at ARCE; and that he was reassured by Mr Harding's confidence and currency in his engineering knowledge and skills during the work he did for the Westpark Towers building.⁸⁴
155. Dr Reay said that while he still had oversight of senior engineers, it was far less hands on, and that it included informal work discussions, being available to answer questions, ongoing training, and limited review of designs. He said, generally speaking, he did not review designs prepared by other senior engineers.⁸⁵
156. Dr Reay said he was satisfied that Mr Harding was capable of working on the CTV building for the reasons at paragraphs 49 to 51 and 121 above. He said: he recalled discussing the south shear wall with Mr Harding, he informally followed the work Mr Harding was doing on the CTV building and discussed it during breaks in the tearoom, and he did not review the plans for the CTV building in detail.⁸⁶
157. In his submissions for this proceeding, Dr Reay said: he is the only witness giving evidence in the proceeding with first-hand knowledge of what occurred in 1986; there is nothing to contradict his evidence of what occurred in 1986; we have no basis to not accept his evidence; we should prefer his view that Mr Harding was capable of carrying out the work; and stronger evidence of more serious allegations is required before the standard of proof is met.⁸⁷
158. In his written response to our questions, Dr Reay said: most of the design work on the Westpark Towers building was completed before the bulk of the work on the CTV building; he had worked with Mr Harding for several years and knew his experience, knowledge and attention to detail; he agreed the complexity and technical difficulty of a building was an important aspect to consider in assessing the level of oversight required for a subordinate engineer; Mr Harding was careful and would ask for help when he needed it; he (Dr Reay) considered himself responsible for the projects completed by his

⁸³ IC meeting transcript, above n 23, at 75, 87, and 91.

⁸⁴ Affidavit of Alan Reay dated 31 October 2023 (**Dr Reay's affidavit**), at [26], [28], [38] and [39].

⁸⁵ At [67].

⁸⁶ At [68].

⁸⁷ Dr Reay's submissions dated 5 December 2023, at [19], [33] and [80].

company (ARCE); and that the Westpark Towers and CTV buildings were different but equally complex.⁸⁸

159. In this proceeding, Dr Reay provided an affidavit from Mr Hanham. Mr Hanham was a structural engineer and director of a small firm in the mid 1980s. Mr Hanham, amongst other things, said: in the 1980s the degree of supervision provided to staff members differed considerably depending on the experience level of the engineer being supervised; close supervision stopped when the engineer became registered and/or a member of IPENZ; there were different practices in different firms regarding the requirement to sign off work; it was common practice, especially in smaller practices, for engineers to take on work in areas outside of their experience, which was possible for experienced engineers as they already had well-developed skills and understood key engineering principles; Mr Harding's salary was at a level which the IPENZ responsibility groupings indicated he would not require any supervision; based on Mr Harding's salary, it appeared Mr Harding and Dr Reay viewed Mr Harding's competency as at a level where he would not require supervision.⁸⁹
160. With his submissions dated 14 August 2013, Dr Reay provided an affidavit from Barry Ramsay. Mr Ramsay was a structural engineer and director at Powell Fenwick in Christchurch in the mid 1980s. Mr Ramsay, amongst other things, said: the work undertaken by graduates was closely directed and overseen by senior engineers, but as the engineers became more experienced, technical supervision would reduce to the point where an engineer would "*self-regulate*" their supervision; such self-regulation might occur after five to seven years' post-graduate experience but this would vary from person to person; the level of supervision that occurred in the 1980s "*varied from practice to practice and with project size, type and complexity*"; and in his view Mr Harding should have, among other things, "*been able to work with minimal supervision*" and "*would be expected to seek such supervision and research additional knowledge as he or she might identify as being required*".⁹⁰
161. With his submissions dated 14 August 2013, Dr Reay provided an affidavit from Mr Coates. Mr Coates was an electrical engineer and sole practitioner at Coates Consultants Limited in the mid 1980s. Mr Coates said the Code of Ethics, as it applied in 1986, had "*serious deficiencies*" and no explicit supervision requirement, and, in his view, it was Mr Harding's responsibility to inform Dr Reay he was not competent to design the CTV building.⁹¹
162. In this proceeding, we called Dr Buchanan as an expert witness. Dr Buchanan was a structural engineer and director of a small firm, Buchanan and Fletcher Limited, a firm similar in size to ARCE in the mid 1980s. Dr Buchanan said in his first statement that: he and the other director of the firm, Mike Fletcher, would not take on any work from a client unless they were confident it was within their expertise; no work was allocated to junior engineers unless the partner was sure of their competence to carry out the work; all employed staff worked under close supervision; the partner in charge discussed allocated work with junior engineers and draughtsmen on a daily basis; the two directors took total responsibility for project design, drawings and documentation; and all drawings were reviewed in great detail before the drawings were issued.

⁸⁸ Dr Reay's written response, above n 74.

⁸⁹ Affidavit of Noel Hanham dated 21 November 2023, at [24], [25], [35], [51] and [52].

⁹⁰ Affidavit of Barry Ramsay dated 5 August 2013, at [18], [21], [23] and [30(a)-(b)].

⁹¹ Affidavit of Gerald Te Kapa Coates dated 12 August 2013, at [27].

163. In his supplementary statement Dr Buchanan said, amongst other things, that the CTV building design was a complex problem because of the eccentric form of the building as compared to the Westpark Towers building which would have been relatively simple to design. Dr Buchanan said he was not provided with evidence that Mr Harding had sufficient experience in the structural design of irregular, multi-storey, reinforced concrete buildings, such as the CTV building, to carry out the design on his own with no review or assistance by others.⁹²
164. In his oral evidence, Dr Buchanan disagreed with Mr Hanham’s view that: close supervision stopped when engineers became registered and that becoming registered demonstrated a level of competence that allowed them to work independently and sign off work.⁹³ Dr Buchanan said *“if an engineer was taking on work and doing something they had not done before then the whole project would be approached much more cautiously and there would be questions asked”*.⁹⁴ Dr Buchanan accepted he could not comment on the practices where Mr Hanham worked. Dr Buchanan said that, from his review of the responses in Appendix E of the Beca report, his experience was largely similar to the experiences of those engineers.⁹⁵

Did Dr Reay fail to adequately supervise Mr Harding?

165. Broadly speaking, we consider “supervision” is a continuum informed by an engineer’s experience. In the context of a working relationship between two senior engineers, we consider the type of supervision that applies, in broad terms, is oversight. In the circumstances, we consider oversight refers to a collaborative work style where a principal provides sufficient support to the subordinate engineer. In this case, Dr Reay and Mr Harding’s relationship was that of two senior engineers. Their relationship was not of a senior and junior engineer, where close supervision would be generally required.
166. Dr Reay’s evidence is essentially that he did not have any involvement in checking the design work undertaken by Mr Harding on the CTV building, other than discussing the south shear wall and some informal tearoom discussions. Dr Reay says that as he was not personally designing the CTV building, and another senior employee of his firm was, he did not consider he had any responsibility to check Mr Harding’s design work.
167. The contemporaneous time record evidence from the CERC inquiry shows Dr Reay recorded three hours for the CTV building design.⁹⁶ In their evidence to the CERC, the only conversation Dr Reay and Mr Harding agreed they had during the CTV building design was about the south shear wall.⁹⁷ Dr Reay says Mr Harding was sufficiently senior so as to not need supervision and that he was adequately supervised given the circumstances existing at the time. Dr Reay says Mr Harding would reasonably have been expected to identify and raise any shortcomings in his capability to Dr Reay.

⁹² Dr Buchanan’s supplementary statement, above n 65, at [5(a)].

⁹³ Hearing transcript, above n 24, at 40-41.

⁹⁴ At 44.

⁹⁵ At 38.

⁹⁶ CERC report, above n 3, at 57-58.

⁹⁷ At 60.

168. Based on Dr Reay's own evidence and the contemporaneous time records, it is clear that Dr Reay had little involvement in the CTV building design and that he had little, if any, oversight of Mr Harding. Instead, Dr Reay placed the responsibility for the design almost entirely on Mr Harding.
169. Dr Buchanan's expertise and experience is relevant. He is qualified to comment and we found him to be a credible witness. We have considered the views of a number of different engineers also practicing in the mid 1980s. In our view, Dr Buchanan's evidence is the most reliable on the accepted standards of the day regarding supervision. We prefer his evidence over Mr Hanham's evidence, to the extent that they are different with regard to how a typical consulting engineering firm was run, the role of the firm principal, and how work was reviewed before it was finalised in the mid 1980s. We consider Dr Buchanan's evidence on these key issues demonstrates the practice of a competent, ethical and responsible principal in the mid 1980s. We note Dr Buchanan's evidence is supported by the unredacted written responses of all of six of the engineers interviewed by Beca. On the totality of the evidence, we find that in the mid 1980s, there was some level of oversight, or active involvement throughout a project between the principal and design engineer. We find the "hands off" approach described by Dr Reay inconsistent with this practice. We prefer the evidence of Dr Buchanan, and the majority of the engineers interviewed for the Beca report, whose supervision practices represents that of a reasonable body of Dr Reay's peers in the mid 1980s.
170. We find that Dr Reay's supervision of Mr Harding was inadequate and fell short of the accepted standards of the day. We accept supervision standards in 1986 were lower than they are now. However, Dr Reay's oversight of Mr Harding was virtually non-existent. Dr Reay was the sole principal and employer of Mr Harding, and Mr Harding was carrying out complicated design work of which he had no experience. As we have determined, Mr Harding did not have the necessary experience to design the CTV building.
171. In our view, discussing complicated design work over morning tea breaks is not oversight. Although we note there was some informality in the mid 1980s, we consider discussing such work over morning tea breaks is insufficient. We consider it conflates a break from work with work itself. We note that no contemporaneous evidence has been provided that such discussions occurred between Dr Reay and Mr Harding. We also note that these purported discussions are inconsistent with Dr Reay's evidence that he handed over responsibility for the project to Mr Harding. In any event, the difficulty with leaving it to an employee (even a senior engineer) to raise any issues is that the engineer may not have known there was a problem due to their lack of experience and may not have known whether to ask for help. As Mr Harding said in his evidence to the CERC, "*you don't know what you don't know*".⁹⁸
172. Dr Reay had not used ETABS analysis himself at the time of the CTV building design. In his evidence to the CERC, Dr Reay said at the time Mr Harding received the preliminary architectural drawings, Dr Reay asked him about the CTV building layout.⁹⁹ Dr Reay said he identified the CTV building layout could create excessive torsional response.¹⁰⁰ Dr Reay had a PhD in civil engineering, over 15 years of structural engineering experience, and he was a registered engineer and sole principal of his firm. Mr

⁹⁸ CERC report, above n 3, at 58.

⁹⁹ At 60.

¹⁰⁰ At 60.

Harding had not used ETABS analysis for a building of similar complexity to the CTV building at the time.

173. We consider that Dr Reay’s responsibility was not limited to securing the CTV building project from the client and agreeing the commercial terms. As the sole principal of ARCE, Dr Reay held responsibility for ensuring his firm had the necessary expertise. We consider that this was crucial to Dr Reay’s firm ensuring that all buildings it designed provided the requisite level of safety to the people who would use them. Mr Harding had not designed nor been responsible for designing a building of the CTV building type. As a result, we find Dr Reay’s decision to give Mr Harding responsibility to design the CTV building and take a “hands off” approach was inconsistent with the acceptable standards of the day and provisions 1 and 8 of the Code of Ethics 1986. Given his “hands off” approach, and his own limited experience in this area, Dr Reay should have provided Mr Harding with a suitably qualified engineer who had the appropriate level of experience to assist Mr Harding. As the sole principal of the firm, Dr Reay should have also provided oversight to Mr Harding throughout the CTV building design.
174. In our view, Dr Reay’s conduct, his decision that Mr Harding was competent to design the CTV building with no assistance and without oversight, fell well short of the acceptable standards of the day. On Dr Reay’s evidence, he considered no oversight of Mr Harding was needed in 1986 and a “hands off” approach would be sufficient. Even if Mr Harding was sufficiently experienced to design the CTV building (which he was not), in our view, the level of oversight Dr Reay provided Mr Harding was inadequate.
175. In our view, Dr Reay’s conduct was in breach of his ethical obligations under provisions 1 and 8 of the Code of Ethics and rule 18.2 of the IPENZ’s Rules 1986. We find that Dr Reay’s conduct fell below the accepted professional standards in 1986. Firstly, Dr Reay’s failure to provide supervision in the form of oversight to Mr Harding during the CTV building design demonstrated he did not exercise his professional and technical skills and judgement to the best of his ability, nor discharge his professional technical responsibilities with integrity.¹⁰¹ Secondly, Dr Reay’s decision that Mr Harding was competent to design the CTV building without any oversight demonstrates he did not recognise his responsibilities to others associated with his work, the public interest in matters of health and safety, and the profession.¹⁰²
176. We note our view is consistent with the CERC report’s findings that Mr Harding lacked the relevant experience and his work ought to have been supervised by Dr Reay, who failed in his professional obligations by taking a “hands off” approach.¹⁰³
177. We also note our view is consistent with the findings of the Disciplinary Committee in relation to the complaint against Mr Harding. In that proceeding, Mr Harding acknowledged his lack of competence but said he believed Dr Reay was reviewing his work. The Disciplinary Committee in that proceeding found that Mr Harding “*as a professional engineer should have been proactive and taken steps to ensure his design was properly reviewed.*”¹⁰⁴ However, that Disciplinary Committee also stated it was “*firmly of the view that primary responsibility for ensuring proper and adequate review of engineering*

¹⁰¹ The Institution of Professional Engineers Code of Ethics 1986 (**the Code of Ethics 1986**), cl 1.

¹⁰² Clause 1; The Institution of Professional Engineers New Zealand Rules 1986 (**IPENZ Rules 1986**), r 18.2.

¹⁰³ CERC report, above n 3, at 71.

¹⁰⁴ DC Harding decision, above n 5, at [6.36].

design documentation lies with the organisation responsible for the delivery of the design”.¹⁰⁵ We concur with this view.

Should Dr Reay be disciplined?

178. Having found that Dr Reay’s conduct fell short of accepted professional standards, we must now consider whether it was sufficiently serious to warrant disciplinary sanction.¹⁰⁶

179. Rule 18.2 of the IPENZ Rules 1986 states (emphasis added):

Each member shall so conduct himself as to uphold the dignity, standing and reputation of the Institution and of the profession and with due regard to the public interest, **especially in matters of health and safety**.

180. Rule 4.2 of the IPENZ Rules 2010 states the Code of Ethics recognises, among other things, the following ethical values:

- Protection of Life and Safeguarding People;
- Sustainable Management and Care for the Environment;
- Commitment to Community Well-being;
- Professionalism, Integrity and Competence; and
- Sustaining Engineering Knowledge.

181. We consider that all of these ethical values are central to the profession. Professional disciplinary proceedings exist to protect the public, maintain the public’s confidence in the integrity of the profession, and declare and uphold professional standards. This is to ensure that, in the public interest, such standards are met in the future.¹⁰⁷

182. If a sole principal of an engineering firm in these circumstances was not required to supervise employees, especially complicated design work such as the CTV building design, this would increase the risk to public safety significantly. Thus, if we were to permit such conduct, public protection and trust in the profession would be seriously diminished.

183. In our view, Dr Reay’s evidence and the approach he took reflects a failure by him to understand the level of responsibility he had as the sole principal of ARCE in the supervision of his employee, Mr Harding.

184. For the reasons in this decision, we find that Dr Reay breached the Code of Ethics 1986 and that this breach constitutes grounds for discipline under rule 11 of the IPENZ Rules 2010. As a result, we find Dr Reay’s conduct fell below the accepted standards in 1986 and that he should be disciplined.

PROCEDURAL CHALLENGES

185. Dr Reay has raised a considerable number of procedural challenges prior to, during and after the hearing. Dr Reay says there have been serious breaches of natural justice that are highly prejudicial to

¹⁰⁵ DC Harding decision, above n 5, at [6.45].

¹⁰⁶ Disciplinary Regulations, above n 58, cl 17(3); *Robinson v RA*, above n 61, at [40(e)].

¹⁰⁷ *Z v Dental Complaints Assessment Committee*, above n 56.

him and his ability to respond to the complaint, such that the complaint should be dismissed. We disagree.

186. We have considered all of the issues raised. Our view is that Dr Reay has not been denied a fair opportunity to respond to the complaint.
187. The proceeding has a protracted history. Dr Reay has raised many and varied procedural challenges, over a number of years. Some of the issues raised have been considered by the High Court and/or the Court of Appeal on appeal or judicial review.
188. It is important to remember that the complaint being heard by us is part of an inquisitorial process. We are not a Court. Our process is not intended to be adversarial. Ultimately, the complaint is being heard within the framework of IPENZ, the committee members of which operate primarily on a voluntary basis, to provide learning, development, and growth for the benefit of the profession. The processes within this framework exist primarily to protect the public and do not have a punitive focus.
189. Below we address some, but not all, of the number of procedural challenges raised by Dr Reay.
190. Dr Reay says we have fundamentally misunderstood our role and the task before us.¹⁰⁸ We disagree. Collectively we have extensive experience in hearing and considering disciplinary complaints in this jurisdiction.
191. Dr Reay has had the benefit of senior counsel and been given the opportunity to put his case to the Disciplinary Committee and question the Investigating Committee's representative and Dr Buchanan on the substantive issues in dispute. As mentioned, neither Dr Reay nor his expert witness attended the hearing in person or via AVL.
192. On the evidence before us we have considered the complaint in a fair and objective way, to reach our decision.

Evidence objected to

193. Dr Reay says that the Disciplinary Committee should not have considered the CERC or the Beca reports, and the evidence of the Investigating Committee representative Dr Stewart, to the extent that these reports and Dr Stewart commented on the substance of the complaint.¹⁰⁹
194. In determining the complaint, we may receive any evidence we think fit, provided that we observe the requirements of natural justice.¹¹⁰ For the reasons set out at paragraphs 93 to 100 above, we adopt the same approach as the Investigating Committee. While we have not adopted any of their findings or conclusions, we consider the CERC and Beca reports to be evidence that we can have regard to in considering the complaint. In any event, we have reached our decision based on the evidence before us, in particular Dr Reay's and Dr Buchanan's evidence.
195. Dr Reay says that Dr Stewart significantly overstepped the Investigating Committee's jurisdiction in giving his evidence.¹¹¹ We disagree. In our view, Dr Stewart carried out his role in accordance with the process set out in the Disciplinary Hearing Procedure. Dr Reay's objection to Dr Stewart's evidence

¹⁰⁸ Dr Reay's closing submissions, above n 79, at [5].

¹⁰⁹ At [20].

¹¹⁰ Disciplinary Regulations, above n 58, cl 17-20.

¹¹¹ Dr Reay's closing submissions, above n 79, at [45].

misunderstands the role of the Investigating Committee in this disciplinary jurisdiction. We do not accept that the Investigating Committee was suggesting that its findings be used to determine the complaint; it was clear overall that the Investigating Committee appreciated its role was to consider whether the complaint should be referred to a disciplinary committee or otherwise be dismissed. For completeness, we put aside any statements of the Investigating Committee that might be interpreted as suggesting how the complaint might be determined and confirm we have reached our own conclusions on the information before us.

196. Dr Reay says that the provision by Dr Buchanan of supplementary evidence just before the hearing was unfair, that it went beyond the scope of his first statement, and that the Disciplinary Committee is not entitled to take account of it as it would be a breach of natural justice.¹¹² We disagree.
197. Dr Buchanan's supplementary evidence was a short, supplementary statement provided in response to issues raised in Dr Reay's evidence (relating primarily to the Westpark Towers building). The supplementary evidence responded to a request from Dr Reay. In our view Dr Reay and his counsel were capable of responding to the statement at the hearing.
198. Dr Reay did not ask for further opportunity to respond to Dr Buchanan's supplementary statement, did not ask for an adjournment of the hearing to allow such a response, did not ask for the supplementary statement to be ruled inadmissible at the hearing, and Dr Reay's counsel had the opportunity to question Dr Buchanan about that supplementary evidence. The Committee also asked Dr Reay further questions in writing through his counsel at the hearing and Dr Reay was able himself to provide supplementary information. Dr Reay had reasonable opportunity to raise any such issues prior to his closing submissions but he did not. In the circumstances, we do not accept it was unfair for us to hear and consider this evidence.
199. Dr Reay says the Disciplinary Committee did not allow him to put certain questions to Dr Buchanan and that it breached his rights to natural justice and a fair hearing.¹¹³ We disagree. As stated in the Disciplinary Hearing Procedure, all questioning was to be directed through the Chair in keeping with the inquisitorial rather than adversarial nature of the hearing, and cross-examination was not permitted.¹¹⁴ It is correct that the Disciplinary Committee declined to allow Dr Reay to put certain questions to Dr Buchanan. However, such questions related to matters about process and procedure. We considered such questions irrelevant and/or unhelpful with regard to the substantive engineering issues we needed to determine. On those substantive issues extensive questioning was permitted. We also note our hearing time was not unlimited. For these reasons, our focus was on the information that would help us to proceed to determine the complaint.
200. As an inquisitorial process, this jurisdiction has its own processes and procedure which are unlike some other professional disciplinary jurisdictions, and unlike the Courts. We can regulate our procedure as we think fit, so long as natural justice requirements are complied with, and we are able to decline the asking of questions at times.
201. In our view it was appropriate to decline to allow the questions given that they were not relevant and/or useful in helping us determine the complaint. In addition, the questions were in the nature of

¹¹² Dr Reay's closing submissions, above n 79, at [25].

¹¹³ At [38] and [43].

¹¹⁴ Hearing Procedure, above n 18, at [29].

a cross-examination which is expressly not allowed in the IPENZ disciplinary setting. At times, Dr Reay (through his counsel) took an approach at the hearing which was unhelpful and inconsistent with its inquisitorial nature. On matters of substance, which went to the issues in dispute, Dr Reay was given a full opportunity to put his case to the witnesses and to the Disciplinary Committee.

202. Dr Reay says that the Disciplinary Committee should rule Dr Buchanan's evidence as inadmissible for reasons including that he failed to confirm compliance with the Code of Conduct for Expert Witnesses (the **Code of Conduct**).¹¹⁵ We decline his request. The Disciplinary Hearing Procedure dated 22 September 2023, which was provided to Dr Buchanan, stated that any witnesses called to give expert evidence were required to comply with the Code of Conduct.¹¹⁶
203. Dr Buchanan was provided with the Code of Conduct in advance of giving evidence. It was clear to us that Dr Buchanan acted as an expert witness and that he understood his role and took his obligations as an expert witness seriously. We consider that questioning Dr Buchanan on the topic of whether he was an expert witness would not have assisted us to determine the complaint.

Disclosure

204. Dr Reay says that he has been prejudiced by the Disciplinary Committee's refusal to disclose certain documents that Dr Buchanan provided to it.¹¹⁷ We disagree. Our process is inquisitorial, and we are entitled to regulate our own procedure, as long as natural justice is complied with.¹¹⁸ Dr Reay has been provided with a significant amount of disclosure in the course of this proceeding. As stated in our Ruling dated 5 December 2023, our decision was to provide partial disclosure of the requested documents. The documents withheld would not have made a difference to the hearing or the outcome of the proceeding.

Failure to call Mr Harding

205. Dr Reay says the Disciplinary Committee failed to call Mr Harding to give evidence, which has left a large evidential gap that cannot now be filled.¹¹⁹ We disagree. Mr Harding was subject to his own disciplinary process, in which he accepted the findings of the CERC inquiry and accepted he breached the Code of Ethics 1986.¹²⁰ His own evidence before the CERC was that he was not competent to undertake the design of the CTV building without supervision by an engineer with experience in the design of multi-storey buildings.¹²¹
206. Mr Harding had previously challenged, by way of a judicial review, the jurisdiction of IPENZ to hear the complaint about him.¹²² He also did not attend his own disciplinary hearing.¹²³ We note that Dr Reay could have similarly tried to call Mr Harding if he believed his evidence would support his position.

¹¹⁵ Dr Reay's closing submissions, above n 79, at [37]-[44].

¹¹⁶ Hearing Procedure, above n 18, at [24].

¹¹⁷ Dr Reay's closing submissions, above n 79, at [28]-[34].

¹¹⁸ Disciplinary Regulations, above n 58, cl 38(2).

¹¹⁹ Dr Reay's closing submissions, above n 79, at [47(c)].

¹²⁰ DC Harding decision, above n 5, at [6.17] and [6.35].

¹²¹ CERC report, above n 3, at 65; DC Harding decision, above n 5, at [6.10].

¹²² *Harding v The Institution of Professional Engineers Inc* [2014] NZHC 2251.

¹²³ DC Harding decision, above n 5, at [4.6].

Inadequate particulars

207. Dr Reay says that there has been a continued failure to provide adequate particulars of the complaint to him, resulting in significant prejudice such that it is not safe to determine the complaint against him.¹²⁴ We disagree.
208. In our view, the details of the complaint that have been provided to Dr Reay have enabled a process that is fair and not in breach of the principles of natural justice. Our view is consistent with the finding by Radich J in the High Court,¹²⁵ that Dr Reay clearly had sufficient information about the complaint to enable him to respond fairly and meaningfully.

Delay

209. Dr Reay says that the excessive delay in determining the complaint is of such prejudice to him that it is “not safe” to determine the complaint against him, that he has not been able to adequately respond to or refute the complaint, and that it is no longer practicable or desirable to do so.¹²⁶ While we are acutely aware of the time elapsed since the conduct giving rise to the complaint, and the time between the date the complaint was made and the date of this decision, we disagree.
210. We have considered the private factors put forward by Dr Reay, including his age, and the age of some of those involved in the complaint. We accept the delay of around 38 years is much longer than complaints ordinarily considered by IPENZ. That said, in our view there is sufficient evidence available to consider and determine the complaint, and Dr Reay has been given a fair opportunity to respond.
211. We have also considered Dr Reay’s own contributions to the overall delay in this case. Had Dr Reay not resigned from IPENZ in 2014 at the time the First Investigating Committee was investigating, and then challenged IPENZ’s jurisdiction to hear the complaint, this investigation would have concluded much earlier.
212. In the circumstances, including the significant public interest in the complaint, we consider it is practicable and desirable to determine the complaint.

DECISION

213. Having reviewed all the relevant information before us, we uphold the complaint.
214. On 21 June 2024, we informed Dr Alkaisi that we upheld the complaint. On the same day, we provided MBIE and Dr Reay our report on the substantive complaint.
215. We have determined Dr Reay should be disciplined. On 21 June 2023, we invited MBIE and Dr Reay to make submissions on the available orders.

¹²⁴ Dr Reay’s closing submissions, above n 79, at [74].

¹²⁵ *Reay v IPENZ*, above n 10, at [7].

¹²⁶ Dr Reay’s closing submissions, above n 79, at [72]-[75].

ORDERS

The applicable law

216. In *Roberts v A Professional Conduct Committee of the Nursing Council of New Zealand*, the High Court set out a number of principles the Health Practitioners Disciplinary Tribunal should apply in determining the appropriate penalty.¹²⁷ The High Court determined a disciplinary penalty must:¹²⁸
- a. Protect the public (including through deterring other practitioners from engaging in similar conduct);
 - b. Set and maintain professional standards;
 - c. Rehabilitate the practitioner back to the profession, where appropriate;
 - d. Be comparable with penalties imposed on practitioners in similar circumstances;
 - e. Reflect the seriousness of the practitioner's conduct, in light of the penalties available;
 - f. Be the least restrictive penalty that can be reasonably imposed in the circumstances; and
 - g. Be fair, reasonable and proportionate in the circumstances.
217. The High Court also stated that while penalty may have the effect of punishing a practitioner, punishment is not a necessary focus for the Tribunal in determining penalty.
218. The principles in *Roberts* are broadly applicable to a disciplinary committee's power to make disciplinary orders.
219. The principles have general application to professional disciplinary proceedings in light of the Supreme Court's decision in *Z v Dental Complaints Assessment Committee*.¹²⁹ In *Z*, McGrath J noted disciplinary proceedings are designed to:¹³⁰

...ascertain whether a practitioner has met appropriate standards of conduct in the occupation concerned and what may be required to ensure that, in the public interest, such standards are met in the future. The protection of the public is the central focus.

220. The Supreme Court in *Z* also said that while professional disciplinary proceedings are not intended to punish practitioners, they may have a punitive effect in practice.¹³¹ It is also consistent with the High Court's view in *Roberts* that punishment is not a necessary focus of a disciplinary penalty.
221. In *AG v IPENZ & Reay*, the High Court set out the standard the public expects when an engineer is a member of IPENZ:¹³²

...membership of a professional body, such as the Institution [IPENZ], can confer a status that signals trustworthiness to the public. This status reflects the value that society places upon the training and skill acquired by members and upon the Institution's [IPENZ's]

¹²⁷ *Roberts v A Professional Conduct Committee of the Nursing Council of New Zealand* [2012] NZHC 3354.

¹²⁸ At [44] – [51].

¹²⁹ *Z*, above n 56.

¹³⁰ At [128].

¹³¹ At [97].

¹³² *AG v IPENZ & Reay*, above n 8, at [55].

ability to maintain the standards of its members through ongoing education, training and disciplinary processes.

222. The High Court in *AG v IPENZ & Reay* also set out the public expectation of IPENZ's role in maintaining the standards of the profession:¹³³

There is, however, a counterbalance to the public trust that is reposed in members of professional bodies such as the Institution [IPENZ]. That counterbalance is the public expectation that the Institution will tightly regulate admission into its ranks and ensure members maintain high professional standards. The public expects that if a person is to be afforded the status of membership of the Institution [IPENZ], then those individuals will maintain professional standards and that those standards will be enforced by the Institution [IPENZ] through, if necessary, disciplinary proceedings. If a professional body, such as the Institution [IPENZ], wishes to maintain that public trust, and the value associated with membership status, then it must act in accordance with this expectation.

223. The reasoning underlying *Roberts'* focus on practitioner rehabilitation is less relevant to the available orders here, in light of the fact that Dr Reay has retired with no intention to practice in the future.
224. It is appropriate that disciplinary orders mark the profession's condemnation of the relevant conduct. In our view, this has application, notwithstanding that Dr Reay resigned his membership from IPENZ.
225. Having found the complaint against Dr Reay established, it is our role to impose orders consistent with the principles in *Roberts* and applicable rules and regulations.

Dr Reay's submissions

226. In his submissions on penalty and costs dated 9 August 2024, Dr Reay submitted the appropriate penalty orders are only an order that Dr Reay be admonished or reprimanded, that there should be no fine, and that there should be no award of costs.
227. In summary, Dr Reay submitted:
- a. The IPENZ Rules 1986 and the Disciplinary Regulations 1986 apply to penalty.
 - b. Under the IPENZ Rules 1986 and the Disciplinary Regulations 1986, the maximum fine that can be imposed is \$750, and the maximum costs order that can be imposed is \$1000. There is no practical effect in expelling or suspending Dr Reay, as Dr Reay is no longer a member of IPENZ or in practice.
 - c. There are no ongoing public interest concerns in this case given Dr Reay is no longer a member of IPENZ or a practicing engineer, he is over 80 years old, and he has been retired for seven years.
 - d. There will be no deterrent effect by imposing a greater sanction on Dr Reay in terms of setting or maintaining industry standards.
 - e. Given the publicity and high degree of media scrutiny, Dr Reay has already been subjected to significant adverse public comment.
 - f. If the Disciplinary Committee determines a fine should be imposed against Dr Reay (not accepted), it should be no more than 70% of the maximum amount, that is, \$525.
 - g. If the Disciplinary Committee determines an award of costs should be imposed against Dr Reay (not accepted), it should be no more than \$1,000.

¹³³ *AG v IPENZ & Reay*, above n 8, at [55].

MBIE's submissions

228. MBIE made no submission on the available orders. We note MBIE has not actively engaged in this disciplinary process.

Discussion

229. We know the public places significant trust in engineers to self-regulate. As a professional, an engineer must take responsibility for being competent and acting ethically. The actions of an individual engineer also play an important role in how the profession as a whole is viewed by the public.

230. The Disciplinary Committee has found that Dr Reay's conduct fell below the accepted standards in 1986 and that it was sufficiently serious to warrant disciplinary sanction.

231. In light of the principles in *Roberts*, any orders we make must protect the public (including deterring others from engaging in similar conduct), maintain professional standards, be comparable with penalties imposed in similar circumstances, reflect the seriousness of the conduct in light of the penalties available, be the least restrictive penalty that can be reasonably imposed in the circumstances, and be fair, reasonable and proportionate in the circumstances.

232. As this case relates to conduct in 1986, we agree with counsel for Dr Reay that the IPENZ Rules 1986 and the Disciplinary Regulations 1986 apply to penalty. The orders available under rule 18.7 of the IPENZ Rules 1986, as well as the Disciplinary Regulations 1986, are as follows:¹³⁴

- a. Expulsion from the membership or suspension for any period;
- b. A fine not exceeding \$750;
- c. Reprimand or admonishment; and
- d. Costs not exceeding \$1,000.

233. As Dr Reay has resigned his membership from IPENZ and is no longer practising, we are limited in the orders available to us.

234. There is no directly comparable case to this case.¹³⁵ Counsel for Dr Reay referred us to the decision in relation to *Harding* and the judicial review decision of Mander J.¹³⁶ In *Harding*, that Disciplinary Committee limited its penalty to publication of the details of the complaint, and its findings, and to naming Mr Harding. As it is related to this case, we have taken *Harding* into account.

235. We disagree with Dr Reay that we must take the same approach to orders as did the Disciplinary Committee in *Harding*. Given Dr Reay's position of greater responsibility, we consider his conduct to be more reprehensible than Mr Harding's conduct. Unlike Dr Reay, Mr Harding did not attempt to deny the allegation that he was not competent to design the CTV building, accepted the findings of the Royal Commission, and, by doing so, essentially accepted he breached the IPENZ Code of Ethics current at the time he completed the design.¹³⁷ In contrast, Dr Reay has accepted no responsibility for his

¹³⁴ We accept we cannot make an additional costs order against Dr Reay under cl 14(c) of the Disciplinary Regulations 1986, as submitted by Dr Reay in his penalty and costs submissions dated 9 August 2024 (**Dr Reay's submissions on penalty and costs**).

¹³⁵ In our view, the cases of *Singh* and *O'Connor* referred to in Dr Reay's submissions on penalty and costs at [35] are not relevant.

¹³⁶ DC Harding decision, above n 5, and above n 122. Dr Reay's submissions on penalty and costs, at [30].

¹³⁷ DC Harding decision, above n 5, at [6.35].

conduct. His response to the complaint has focused largely on procedural challenges to the disciplinary proceedings.

236. In our view, Dr Reay's actions, if condoned, would significantly undermine the public's trust and confidence in the engineering profession and IPENZ members.
237. We disagree with Dr Reay that there are no public interest concerns or that there will be no deterrent effect by imposing a greater sanction on Dr Reay than Mr Harding in terms of setting or maintaining industry standards. The media interest and the interest of the CTV families strongly suggests otherwise.
238. Despite his adamant assertions otherwise, Dr Reay's conduct was seriously deficient. In the circumstances, we consider it is important the penalty we impose on Dr Reay reflects the seriousness of his conduct to the fullest extent possible.
239. As set out above, the IPENZ Rules 1986 and Disciplinary Regulations 1986 limit the orders we can impose.
240. We agree with Dr Reay's counsel that Dr Reay cannot be expelled or suspended given he resigned his IPENZ membership and retired from practice. We note that were Dr Reay still a member of IPENZ, we would have imposed an order expelling him from IPENZ.
241. We consider admonish has a stronger meaning than reprimand. We have found that Dr Reay's conduct was seriously deficient. We impose an order to admonish Dr Reay.
242. In the circumstances, given the maximum available fine is limited to a modest amount, we consider any discount would be inappropriate. We impose an order for the maximum fine of \$750 against Dr Reay.
243. The costs to determine the complaint have been significantly greater than any other recent case. In the circumstances, given the maximum available costs amount is \$1,000, we impose an order for the maximum costs amount of \$1,000 against Dr Reay. We acknowledge the Disciplinary Regulations 2012 and IPENZ Rules 2010 set no costs limit. If these rules and regulations applied to our decision on orders, we would have imposed a substantially greater costs order against Dr Reay.

OTHER MATTERS

244. We believe Dr Reay should consider issuing a public apology for his failure to adequately supervise Mr Harding in the design of the CTV building.
245. Publication of the decision is to follow, in accordance with the Disciplinary Regulations 1986.



Andrew McMenemy FEngNZ CPEng
Chair of Disciplinary Committee

APPENDIX – CTV FAMILY GROUP SUBMISSION

My name is Maan Mustafa Alkaisi. I am the spokesperson for the CTV Families Group, which is an unincorporated group comprising the families of the victims that died in the collapse. The Families' objective is to seek justice and accountability for the tragedy.

I am delivering these short submissions on behalf of the Families. The Families do not have the resources to complain against Dr Reay directly, or to call evidence in this proceeding, but we make these submissions to explain the impact of the collapse of the CTV Building on the Families, who are living with the consequences of the tragedy over twelve years later. The tragedy demonstrates the importance of ensuring that correct engineering and building practice is followed in order to protect lives.

115 people lost their lives when the CTV building collapsed. It was the only building that collapsed in this tragic manner, resulting in 64% of the total casualties of the 22 February 2011 earthquake.

Among the 115 loved ones we lost, there were 52 students nurses studying at the King's Education School. We lost medical doctors, teachers, students, patients, administration staff and relationship services.

The Families' experience of losing loved ones in the collapse of the CTV Building has been and continues to be very difficult. Some victims were buried alive. Others were cut into pieces. In the case of some of our loved ones, no traces could be found – not even DNA that could identify them.

We have been mourning our loved ones for the last twelve years. We remember our loved ones in every special occasion, birthdays, and holidays. My granddaughters always ask me why our grandma is not with us. Every family member of the 115 loved ones that I know has a touching story to tell. We miss our loved ones and wish what we experienced will not happen to others.

Our experience has been made all the more painful by the lack of accountability for the CTV building collapse. The Families have been waiting for accountability and the findings of a disciplinary process for 12 years, a wait which has prevented closure and taken an additional toll on the Families.

After 12 years, we welcome that Dr Reay's conduct in relation to the deficient design of the CTV building, in particular the complaint that Dr Reay knew that Mr Harding was insufficiently experienced to complete the design work and failed to adequately supervise him, is finally being examined in a disciplinary hearing.

The Royal Commission established that the design of the CTV building was deficient. The company that designed the CTV building is Alan Reay Consultant Ltd and the director of the company is Alan Reay, yet Alan Reay never accepted responsibility for the work done on the CTV building in his own company. This is despite Alan Reay appointing David Harding to the design of the CTV building and leaving him without effective supervision.

This lack of personal responsibility by Dr Reay has hurt the families deeply.

While I understand that it is outside the scope of this hearing, the CTV families also believe that Dr Reay became fully aware of the design deficiencies in the CTV building and had further two opportunities to rectify the problems, first when Council Engineer Graeme Tapper listed 13 issues in the CTV design back in 1986 and second when the Holmes Inspection report identified serious design deficiency in 1991. Yet Dr Reay did not take any effective measures to rectify these vital deficiencies in the building design, risking people's lives, resulting in one of the worst engineering failure and tragedy in the country.

In the years since the tragedy, the CTV Families have not only advocated for accountability for the collapse of the CTV building, but for reform and improvement in building design and construction practice generally. The Families submitted on the 31st October 2019 and on the 16th July 2021 in support of the Ministry of Business, Innovation and Employment's proposal to establish a regime for the occupational regulation of engineers. Cabinet approved that proposal in March 2022, and a Bill establishing the regime is expected to be introduced to Parliament shortly.

The Families hope that this new regime will help to ensure that the tragedy of the CTV building collapse is not repeated. The Families' strong hope is for the development of a culture in the engineering profession where engineers will keep human safety in mind and proactively report problems that may pose a safety risk to the regulatory authorities.

The Families support Engineering New Zealand's investigation and disciplinary process regarding Dr Reay. It is important for professional complaints to be thoroughly and fairly investigated and determined. Doing so will send a strong message to the profession to ensure the protection of human lives and safety when designing, constructing or inspecting buildings.