

2003 STRUCTURAL TASKFORCE

ACTIONS INITIATED BY IPENZ

| Ensuring structural engineering work is only undertaken by those over whom IPENZ has jurisdiction to assess and discipline | |
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| ACTION | STATUS |
| Working with the Department of Building and Housing to ensure the Department recommends to Building Consent Authorities that for professional engineering work Building Consent Authorities should consider requiring that such work be performed by registrants on the CPEng register | The Department of Building and Housing has appointed International Accreditation New Zealand as the accreditation agency for Building Consent Authorities. IPENZ discussed the issues with the International Accreditation New Zealand and it was agreed that requiring structural engineering work to be undertaken by a CPEng is a process by which Building Consent Authorities will meet the accreditation requirement. |
| Working directly with Building Consent Authorities to show them how working with IPENZ to use the CPEng register as the basis for deciding the engineers they accept work from allows them to manage their risk | <p>IPENZ participated in meetings involving almost all Building Consent Authorities to explain CPEng to them. In addition it circulated information on CPEng to them. A significant number of Building Consent Authorities have made CPEng mandatory for engineering work.</p> <p>IPENZ regularly provides BCAs, through individual member requests, details of the practice areas in order that the BCA can approve that individual as competent to submit specific designs.</p> |
| Developing notification systems for information exchange between IPENZ as Registration Authority and the Building Consent Authorities | <p>The Building Consent Authorities informed us that making complaints about CPEng is not an action they would necessarily take. However if a notice to the engineer concerned about poor work is issued, copying this notice to IPENZ could be contemplated. Receiving of more than one notice about an individual would give IPENZ sufficient reason to call in the engineer concerned for immediate competence re-assessment. To date no such notifications of poor work have been received by IPENZ. As a result, the number of engineers called in for earlier than scheduled re-assessment is low.</p> <p>IPENZ has recently revised its CPEng reassessment criteria to allow for early reassessment if circumstances require.</p> |
| Developing linkages between the Licensed Building Practitioners | The Design 3 standard and Site 3 standard are the relevant standards. |

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| scheme and CPEng (for example ensuring the design and site licences represent rigorous standards) | IPENZ has assisted the Department of Building and Housing in developing these standards. However, the Design 3 standard is more an architectural standard, and in the view of IPENZ is a lower level standard than CPEng. IPENZ has advocated strongly that CPEng is therefore the clear benchmark for structural engineering design competence. However, there remains a risk that engineers will apply for Design 3 licences, and then present to Building Consent Authorities as having equivalent competence to CPEng. |
| Updating and improving producer statements for supply of professional services. | <p>The Association of Consulting Engineers New Zealand, IPENZ and the New Zealand Institute of Architects have collaborated to update the producer statements (effectively a form of certificate issued by a professional). A requirement that there is sufficient professional indemnity insurance cover in place provides consumer protection. These certificates are intended for use by either registered architects or CPEng, reinforcing the recommendation to Building Consent Authorities.</p> <p>The joint Association of Consulting Engineers New Zealand /IPENZ/NZIA Producer Statements were revised in 2007. See http://www.ipenz.org.nz/ipenz/practicesupport/endorsedinfo/</p> <p>IACENZ issued a draft guideline document on producer statements in early 21012. IPENZ Practice Note 01 <i>Producer</i> Statements has been revised to reflect ACENZ guidelines, and the draft is ready for member consultation.</p> |
| Ensuring competence assessment and disciplinary processes are robust and to international best practice | |
| ACTION | STATUS |
| Developing guidelines for CPEng assessors working in the structural area and improved training of assessors | In 2006 a small working group was asked to prepare guidelines to assist assessors interpret the CPEng competence standard in the context of structural engineering. These guidelines have been made available to assessors. One of IPENZ's collaborating technical societies, the Structural Engineering Society of New Zealand agreed to form a second working group with the goal of improving these still further. The Structural Engineering Society |

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| | <p>of New Zealand has also agreed to help identify experienced structural engineers prepared to undergo training as assessors.</p> <p>Guidelines for assessing the competency of structural engineers have been further developed to assist applicants and assessors.</p> <p>See http://www.ipenz.org.nz/ipenz/forms/pdfs/Practice_Field_Guidelines-Structural_Final_version.pdf .</p> |
| <p>Benchmarking of our professional engineering competence assessments via the Engineers Mobility Forum review in 2006</p> | <p>IPENZ passed this review conducted by three other countries on behalf of the 15 members of the Forum agreement. We submitted 12 cases, including two borderline cases so that the reviewers could see where we set the standard. They confirmed the standard was appropriately set. In addition, the CPEng competence standard was used as the basis for the international exemplar competence standard approved by the Forum in 2005. There has been one appeal on a registration matter to the Chartered Professional Engineers Council where a structural engineer tried to overturn IPENZ's decision not to register him. This appeal was unsuccessful. As part of our continuous improvement process, revised application forms intended to improve the consistency of competence assessments have just been launched and six assessor training sessions held around the country. In its auditing role, the Chartered Professional Engineers Council annually reviews the operation of IPENZ's Competence Assessment Board.</p> |
| <p>Investigating complaints using best practice processes</p> | <p>At time of their creation, the investigating and disciplinary processes in the CPEng Rules were reviewed widely, and received positive comments from the Ministry of Justice's peer reviewers. IPENZ has developed a procedures manual to guide those involved as the investigating and disciplinary committees include members chosen for their technical expertise, which means they need assistance on process. Approximately 15 complaints are received each year relating to a wide range of</p> |

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| | <p>engineering fields. To date there have been four complaints received on structural engineering issues. All four were determined to relate to the grounds for discipline (competence, negligence or ethics) and were sent to investigating committee. One was dismissed by the Investigating Committee, one complaint has progressed to a disciplinary committee and two are still at investigating committees. In addition the Chief Executive has deemed two matters to be complaints as a result of information received. These two matters were investigated, but the Investigating Committee determined that there was no case to answer in either.</p> |
| Continually improving our disciplinary processes | <p>The Chartered Professional Engineers Council reviews closed disciplinary cases quarterly as part of its audit. Their comments and IPENZ's own self-learning are applied to improve the processes. Disciplinary Committees involve two lay members. Their feedback on process improvement is welcomed. The recently retired Chief Executive of the Consumers Institute sat on two disciplinary committees (in the IPENZ rather than the CPENG context) and commented positively on the process.</p> <p>A further review of the complaints and disciplinary process has been ongoing over the past months</p> |
| Developing and introducing a voluntary code of practice by the engineering profession | |
| ACTION | STATUS |
| Working with the Association of Consulting Engineers New Zealand to develop and promulgate a voluntary code of practice in respect of design detailing, improved peer review, and the use of supplementary guidance documents | <p>Joint Association of Consulting Engineers New Zealand /IPENZ Practice Note 14 <i>Structural Engineering Design Office Practice</i> published after many rounds of review in 2009. See http://www.ipenz.org.nz/IPENZ/Forms/pdfs/PN14_DesignOfficePractice.pdf</p> <p><i>Independent review of structural designs for building consent</i> published in Structural Engineering Society New Zealand Journal 2010. This greatly expanded the guidance on regulatory review given in IPENZ Practice Note</p> |

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| | <p>02 <i>Peer Review.</i></p> <p>See http://www.ipenz.org.nz/ipenz/forms/pdfs/PN02_Peer_Review.pdf</p> <p>Practice Note Guidelines for Documenting Fire Safety Designs, released in September 2011, which provides guidance on the documentation required to adequately describe a building project's fire engineering design and how to record it for building consent</p> |
| Explaining this code to Building Consent Authorities so they will give preference to those who have adopted it | BCAs have been made aware of the existence of the above practice guidance documentation |
| Working to ensure that regulatory documents eg the Building Code correspond to good engineering practice | <p>IPENZ actively submits and works behind the scenes. A recent success was the introduction of the requirement that the new loadings code (S1170) must be applied by a CPEng. This will assist in limiting structural work to CPEng.</p> <p>Another example is the Memorandum – Certificate of Design Work required for all Restricted Building Work.</p> <p>IPENZ also nominates experts to a wide range of Standards New Zealand committees.</p> |
| Working with its collaborating technical societies and technical interest groups to develop technical advice including supplemental material to relevant standards and codes of practice eg handling newly arrived types of steel, pre-fabricated concrete | <p>The Structural Engineering Society has published several design guides in its Journal:</p> <ul style="list-style-type: none"> • Precast floor support (Professor Fenwick discussed failure of “pigtailed” in 2008, and Structural Engineering Society published non-refereed papers in 2009 and 2011) • Shell beams (Precasters perspective published on the Structural Engineering Society website 2008) • Precast double tee support systems (Hare et al, 2009) • Anchor bolts for steel structures (Scarry et al, 2009) |

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| | <ul style="list-style-type: none"> • Tentative seismic design guidelines for rocking structures (Kelly, 2011) • Design of floors containing precast units (Fenwick et al, 2011). <p>IPENZ has assisted this process.</p> |
| Redeveloping graduate development schemes, enhancing the partnership between IPENZ and endorsed employers, making mentoring more structured, and eventually moving towards qualification-assisted graduate development | The revised scheme has been under development for 12 months and will be launched in October 2007. |
| As required, facilitating the development and promulgation of relevant training modules throughout the profession. | IPENZ has facilitated a number of technical refresher courses in the structural engineering field. The way in which continuing professional development is evaluated at time of re-assessment for CPEng has been improved, and puts the onus on the candidate for identifying the new knowledge in their area of practice in the last five years, and then showing how they have taken steps to learn and apply it in their practice. If they are not aware of key new knowledge then this would be seen as sufficient reason to fail the assessment. |