



engineering
new zealand
Institute of Engineering Professionals

Briefing to Minister Salesa

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OCCUPATIONAL LICENSING

- The Building System Performance branch of the Ministry of Business, Innovation and Employment and Engineering New Zealand are working together to develop a model for occupational licensing for safety-critical engineering work: starting with structural, geotechnical and fire engineering work performed under the Building Act.
- We want a regulatory system that protects, promotes and maintains the health and safety of New Zealanders by ensuring proper standards of engineering and holding the profession to account in meeting those standards. We want this system to be easy to understand and simple to operationalise, as well as effective, efficient and flexible.
- The current Chartered Professional Engineer (CPEng) system isn't working in the way it was intended and does not effectively protect the public. As New Zealand's strongest voice on engineering and the body that operationalises the current CPEng regulatory regime, we know more than anyone its challenges and what needs to change. Currently we have a dual system with CPEng and professional membership and are concerned to avoid three separate pathways for engineering regulation.
- We believe that the complexities, confusion and contradictions in the current regulatory system can be overcome if we repeal the CPEng Act and replace it with a system of licensing for safety-critical work that puts the protection of the public first. This would be complemented by an effective accountability mechanism and underpinned by a strong membership pathway.
- A licensing regime can be extended over time to other areas of safety-critical engineering work that operate under other regulatory systems. For example, water, food processing, heavy vehicle and transportation.

EARTHQUAKE PRONE BUILDINGS

- The current earthquake-prone building regulatory system does not work well for provincial towns in areas of high seismicity because the cost is too high. This has led to continued delay in remediation and could result in the loss of valuable heritage buildings and 'ghost' town centres.
- Most of the remediation required for public safety can be done by a standard set of solutions and does not require specific technical engineering assessment.
- Work is taking place between Engineering New Zealand and Manawatū District Council, Tararua District Council, Whanganui City Council and Palmerston North City Council to explore an alternative option to make heritage low-rise buildings safe enough by targeting the most vulnerable components of buildings.

- This standardised option could address public safety quickly at an affordable cost. This approach has been applied successfully in California and is similar to that applied in Wellington and Lower Hutt in the immediate aftermath of the Kaikoura earthquake. Engineering NZ will report back early next year on proposals for a pilot scheme to retain the vitality of at risk regional centres.

SEISMIC ASSESSMENT OF EXISTING CONCRETE BUILDINGS

- No two earthquakes are alike. We learn important lessons from the way buildings perform after every earthquake that help us to continue to make buildings safer.
- Engineering experts have developed updated guidance for the assessment of concrete buildings, with improved requirements for the assessment of pre-cast concrete floor systems incorporating learnings from the Canterbury and Kaikoura earthquake events.
- The updated guidance will be published but at this stage will not be used to assess earthquake-prone buildings. The original guidance for the seismic assessment of concrete buildings issued in July 2017 will continue to be used for buildings identified by territorial authorities as potentially earthquake-prone. There is a risk of confusion for engineers, building owners, tenants and territorial authorities with two sets of guidance in play.
- Engineering NZ would like to see a more flexible system for publishing EQPB assessment guidance that is more responsive to incorporating new knowledge. This is not possible where updates to the guidance require a full regulatory process.

THE WONDER PROJECT

- And finally, beyond portfolio responsibilities, we'd like to share some good news. The [Wonder Project](#) is Engineering New Zealand's inspiring new school programme, designed to get young Kiwis excited about a career in science, technology, engineering and maths (STEM).
- The Rocket Challenge for year 5-8 is to launch nationwide in April 2019. Then we will be piloting the Community Challenge for year 7-10 with the aim of rolling it out nationwide in 2020. The STEM Careers programme for year 10-13 completes the journey through the support of our 950+ ambassadors.