



ENGINEERS
AUSTRALIA

Building Ministers' Forum External Assessment

Assessment of the Effectiveness of Compliance
and Enforcement Systems for the Building and
Construction Industry across Australia

December 2017



ENGINEERS
AUSTRALIA

Contents

- Introduction4
- Regulatory consistency and inspections4
- Fire safety inspections.....5
- Engineers and the need for registration6
 - Registering areas of practice most relevant to building and construction7
- Peer reviews.....7
- Conclusion.....8
 - Recommendations.....8
 - Contact details8

Introduction

Engineers Australia is the peak body for the engineering profession. We are a member-based professional association with over 100,000 individual members. Established in 1919, Engineers Australia is a not-for-profit organisation, constituted by Royal Charter to advance the science and practice of engineering for the benefit of the community.

Engineers Australia would like to thank the independent experts for meeting with the association on 9 November. This submission provides more detail on selected issues discussed in that meeting, including responses to questions taken on notice.

Regulatory consistency and inspections

Engineers Australia recommends that a consistent approach is taken to critical stage inspections in all jurisdictions.

National consistency in the compliance and enforcement systems for the building and construction industry across Australia is one of the primary issues that should be advanced by the Building Ministers' Forum (BMF).

For example, the current state based inspections principles are inconsistent which has led to a patchwork of building inspection stages. This issue is illustrated with Table 1, which shows what Engineers Australia has been able to identify as the mandatory inspection stages across all jurisdictions.

Critical stage	NSW	Vic	Qld	SA	Tas	ACT	NT	WA
Commencement	✓							✓
Foundation and footing	✓	✓	✓		✓	✓	✓	
Slab/reinforcement or bearer joists	✓	✓	✓				✓	
Frame	✓	✓	✓		✓	✓	✓	
Wet area waterproofing	✓						✓	
External drainage/storm water	✓							
Occupancy	✓				✓	✓		✓
Final/Completion	✓	✓	✓		✓	✓	✓	

Table 1: Mandatory critical stage new building inspections by jurisdiction

This inconsistency leads to uncertainty within the construction sector and makes it harder to comply with regulations, with consequent negative effects on safety and productivity.

This is a view supported by the Commonwealth Parliament's Senate Standing Committee on Economics. The interim report for its inquiry into non-conforming building products stated the following:

"The committee supports the implementation of nationally consistent mandatory on-site inspections throughout the construction process... it is evident from the evidence received that there needs to be a central oversight role independent from industry to provide assurance to the public that structures are built according to the agreed national standards."¹

In terms of which stages should be subject to mandatory inspections, those listed in Table 1 should be used as the starting point for BMF discussions. Deciding which stages remain in a national minimum framework should be determined under advice from industry and the regulators.

Fire safety inspections

Engineers Australia recommends that there be mandatory inspections for fire safety in buildings during the construction process, especially where an alternative solution has been provided. Such inspections should be undertaken by registered fire safety engineers.

Emphasis should be given to inspection points related to fire safety. The need to get this right was demonstrated by the Melbourne Lacrosse fire, and Grenfell Tower fire in London. The safety of the public is paramount, and public confidence in the construction sector needs to be repaired.

The point at which mandatory inspections for fire safety should apply are when there are changes to building designs and when alternate solutions to the National Construction Code (NCC) are used. The appropriate professional to undertake a mandatory inspection is a fire safety engineer.

This is a position supported by the aforementioned Senate committee, which noted in its interim report that it, "... also endorses the inclusion of mandatory inspections by fire safety engineers and fire authorities to ensure buildings are compliant and public safety is upheld."²

Not all jurisdictions require engineers to be registered, and this issue is discussed in the following section.

¹ Senate Standing Committee on Economics, Inquiry into non-conforming building products, *Interim report: aluminium composite cladding*, 6 September 2017. Accessed 6 December 2017 at: https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Economics/Non-conforming45th/Interim_report_cladding.

² Ibid.

Engineers and the need for registration

Engineers Australia recommends that a nationally consistent scheme be created for the registration of engineers in the building and construction sector.

Use of the title 'engineer' is unrestricted and is likely to remain so because it has become a generic term. In the absence of regulation for engineering, anyone can purport to provide engineering services without appropriate competencies and with disregard to standards.

Engineering services are vital to Australia's economic prosperity and social well-being, yet there is no uniform regulatory regime covering engineering practitioners in Australia. Instead, it is ad hoc and largely voluntary.

There are five key benefits of a registration system:

1. Reduced risks to public health, safety and welfare
2. Legislative efficiency and cutting red tape
3. Industry and consumer information
4. Professional recognition
5. International mobility and trade in engineering services.

All registration systems have the same basic characteristics in that standards must be set, courses accredited, candidates examined or assessed, and a register maintained. Performance must be monitored and failures disciplined. A register has greater effect if supported by licensing arms of government.

Engineers Australia supports a co-regulatory model of registration involving statutory bodies and professional associations undertaking various roles. The co-regulatory model provides greater assurance of the competency of registered engineering practitioners and reduces the risk of physical and financial harm to consumers. This approach allows industry and the professional association to control the qualifications and competency standard applied to a practitioner, but allows government to oversee the assessment and monitoring system and standards applied to practitioners through the approval process.

The National Engineering Register (NER) was introduced by Engineers Australia in 2015 and is recommended as the mechanism for introducing a co-regulatory model of registration for engineers.

A guiding principle of the voluntary registration model introduced by Engineers Australia (the NER), is to increase the professionalism of the broadest possible cohort of practising engineers. Under a co-regulatory approach, Engineers Australia believes that the legislation governing the delivery of engineering services in states and territories ought to:

- contain restrictions on who may deliver engineering services
- restrict the 'registered' title to those who are on a (national) engineering register
- register engineers in the broadest possible areas of engineering practice aligned with the areas of practice on the National Engineering Register and not by industry sector, with the onus on each registered engineering practitioner to only undertake work that he or she is competent to undertake
- base registration on a competency assessment by approved assessment entities
- include a mandatory continuing professional development regime for ongoing registration

- included a mandatory requirement to have the benefit of professional indemnity insurance.

The NER is the largest publicly searchable register in the country. It delivers a uniform national benchmark of professionalism in the broadest areas of engineering practice, both general and special, in both the private and public sectors. The NER covers each of the three occupational categories: professional engineer, engineering technologist and engineering associate.

The Register is accessible to both members and non-members of Engineers Australia. It improves professional recognition and public trust of engineers in Australia because all registrants on the NER meet the standard of professionalism expected of any professional:

- a recognised qualification benchmarked to international education standards
- a minimum level of professional practice
- currency of continuing professional development
- the benefit of Professional Indemnity (PI) insurance
- a commitment to ethical practice
- an annual certificate of registration.

The annual registration certificate issued to registrants on the NER demonstrates their currency and continued commitment to the serious obligations of professional practice.

Registering areas of practice most relevant to building and construction

Engineers Australia believes that all areas of engineering practice in the building industry should be registered. The following is recommended as the minimum range of engineers who should be registered:

- Fire safety engineer
- Hydraulic engineer
- Mechanical engineer
- Civil engineer
- Structural engineer
- Geotechnical engineer

By adopting the National Engineering Register as a uniform register for the profession, the public will have the surety that an engineer working on their building is an engineer trained, competent and accountable.

Peer reviews

The Independent Experts have sought the opinion of Engineers Australia with regard to peer reviews as a mechanism for ensuring compliance with the NCC.

The state regulators are best placed to ensure compliance with the building and construction regulations. Most notably, government agencies have the resources to conduct audits and investigations, and may have powers to compel evidence to be given and to enter worksites.

However, if agencies are not equipped to perform this role, a peer review system could be developed to provide some level of assurance.

The challenge with peer reviews is to develop a scheme that adds value without becoming overly burdensome. There would need to be strict protocols around when a peer review would be required. Some issues that will require greater investigation are: who could conduct peer reviews, how the reviews would be conducted, the frequency and timing of reviews, and commercial in confidence arrangements.

Conclusion

Thank you for the opportunity to contribute to the Building Ministers' Forum's assessment. The BMF is the only forum where each and every minister responsible for state and territory building acts and regulatory instruments meets. This is an opportunity to make wide-ranging reforms that bring consistency to the regulations, introduces necessary and uniform checks to the construction process, and brings in mechanisms to ensure that critical tasks are undertaken by those with the appropriate skills and experience to deliver a safe building and construction service.

Recommendations

The following is a list of recommendations made in this submission:

- Engineers Australia recommends that a consistent approach is taken to critical stage inspections in all jurisdictions.
- Engineers Australia recommends that there be mandatory inspections for fire safety in buildings during the construction process, especially where an alternative solution has been provided. Such inspections should be undertaken by registered fire safety engineers.
- Engineers Australia recommends that a nationally consistent scheme be created for the registration of engineers in the building and construction sector.

Contact details

To discuss this submission further, please contact Jonathan Russell, National Manager for Public Affairs, on (02) 6270 6565 or at jrussell@engineersaustralia.org.au.



ENGINEERS
AUSTRALIA