Design and Building Practitioners Regulation 2020

Stakeholder Feedback Template Form

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About you

These responses and comments are provided by Peter Johnson of Arup and Dr David Lange of The University of Queensland, largely based on our experience and research undertaken for the Warren Centre Project on "Professionalising Fire Safety Engineering" and the ongoing work of the Australian Education Committee on Fire Safety Engineering. The comments are submitted on behalf of the Fire Safety Engineering group at the University of Queensland and the team from the Warren Centre project. The responses and comments are based on the questions posed in the Regulatory Impact Statement published by NSW Customer Service in November 2020.

Regulatory Impact Statement (RIS)

Please use this section to provide feedback on the RIS. The questions from the RIS have been reproduced here for convenience. Page numbers in brackets refer to the section in the RIS.

Scope of reforms (page 15)

1. Do you think the reforms should be expanded to other types of buildings over time? Why/Why not? If so, which types of buildings do you think should be next?

We believe the answer to this question is Yes. While Class 2 buildings have been the recent focus through structural and cladding/fire safety failures, and consumer confidence and trust in the design and construction industry is sorely needed, all buildings and the Australian economy and public health and safety will benefit significantly from similar reforms to ensure all buildings are properly and professionally designed and constructed by registered practitioners. The priorities for the expansion of this approach in NSW should be Class 3 and Class 9A/B for those buildings which house vulnerable sleeping populations for which health and safety are critical.

2. Do you agree that the reforms should only apply to existing arrangements where the Complying Development Certificate or Construction Certificate has been

applied for on or after 1 July 2021? Why/Why not?

Agree. That is the only practical approach.

3. Are the proposed exclusions from 'building work' appropriate? Why/Why not?

It is agreed that the exemptions are reasonable. It is reasonable that if a number of sprinkler heads need to be replaced, for example, as a result of routine maintenance, that the full process of the DBPAct and Regulations should not need to be applied.

The only exemption which seems problematic, is waterproofing in an SOU. Failures of showers and other wet areas has been a major issue already uncovered in the early OC audits and area very common problem and huge frustration to residential apartment owners and tenants. That exclusion should be removed.

4. Are there other works that should be exempted? Please provide the basis for the exemption and when the exemption should be effective (for example, a description of the works or threshold of the value including the reason for that value).

No significant comment. Agree that value thresholds are not appropriate.

5. Do you support the proposed classes of Design Practitioner? Why or why not?

Yes. The proposed classes cover the areas of significant design for Class 2 and mixed-use buildings. As indicated in the RIS, some classes can include specialist areas such as vertical transport under mechanical engineering. For fire safety engineering, the requirement is to be a registered professional fire safety engineer, but the Regulations rightly provides for design practitioners who design fire safety systems.

6. Are there other types of Design Practitioners that should be included or any that should be removed? If so, what are they and why?

One type of design practitioner that should be considered for inclusion is the acoustic engineer/acoustician. Acoustic failure in Class 2 buildings is a serious problem and cause of constant complaint from consumers, both with transmission of external and internal noise. Acousticians are multi-disciplinary specialists who come from a wide range of discipline backgrounds, including architecture, structural and mechanical engineering, materials specialists and acoustic science/engineering.

In the fire safety area, a major omission is the design practitioner – passive systems, given the issues of design and construction of fire resisting penetrations.

7. Do you support the proposed qualification, skills, knowledge and experience requirements for each class of practitioner? Why or why not? Please make suggestions for additional or alternative requirements.

We would propose a change of wording of 12 (2) (d) in Schedule 2 from "the science of fire" to "the body of knowledge relevant to fire safety engineering". The reason for this is that knowledge of fire science on its own is not sufficient for practicing as a fire safety engineer.

Relating to clause 26 on Page 61, there are 5 Pathways proposed under the heading of Fire Safety Engineering. We recommend reducing the complexity of this and we propose the following wording in lieu of pathway's 1, 2 and 3:

(1) Pathway 1—qualifications

At least one of the following—

(a) an accredited 4 year full-time or equivalent part-time undergraduate bachelor degree in fire safety engineering,

(b) an accredited 4 year full-time or equivalent part-time undergraduate bachelor degree in civil engineering, mechanical engineering, chemical engineering or electrical engineering, and an accredited postgraduate diploma in fire safety engineering or accredited master's degree in fire safety engineering

(c) a non-accredited qualification or qualifications that have been assessed as being equivalent to an accredited qualification in paragraph (a) or (b)

What are currently numbered as Pathways 4 and 5 should remain as they are.

8. Other than qualifications, skills, knowledge and experience, are there any other eligibility criteria that applicants should meet to be eligible for registration?

We believe that this is sufficient.

9. Do you agree that practitioners should be required to have 5 years of recent and relevant practical experience?

Yes. The 5 years of experience should be within the last 10 years of practice to ensure the knowledge and skills are contemporary and therefore relevant to current practice.

10. Some classes of practitioner have been proposed with authority to work on low and medium rise buildings? Do you support this approach?

No, the risks to occupants in low and medium rise residential buildings are not lower, and in some cases are higher, because less safety measures are included in lower rise buildings under the NCC/BCA. Anecdotal evidence at least suggests design and construction is more problematic, often undertaken by less competent practitioners, and so the standards expected of practitioners should be the same across all types of residential buildings.

11. Are there any other areas of engineering that should be captured for the purposes of designing or constructing a class 2 building, or a building containing a class 2 part?

See 6. above re acoustic engineers

12. Do you support a co-regulatory approach for the registration of engineers?

Yes. Based on evidence gained through the Warren Centre research in "Professionalising Fire Safety Engineering", we examined a range of schemes for accreditation, licensing, and registration, and concluded that the most appropriate and cost-effective system for Australia was the co-regulatory approach to registration of engineers, including fire safety engineers.
https://www.sydney.edu.au/engineering/industry-and-community/the-warren-centre/fire-safety-engineering.html

13. Pathway 1 will require an engineer to satisfy certain qualifications, skills, knowledge and experience requirements. Are there any other eligibility criteria that engineers should meet before being registered?

The only other eligibility requirements are to ensure practitioners have made a commitment to CPD and to maintain its currency, have the requisite level of PI insurance and are committee to the prescribed code of practice, all of which are included in the current proposed Regulations.

What is not clear in the proposed Regulations is the clear alternative Pathways and 3 options for professional registration. It is clear in the RIS, but the three pathways are not defined nor their scope set out in the Regulations. There is also confusion in Schedule 2, as there is reference up to 5 Pathways for Professional Engineer - Fire Safety Engineering.

14. The Regulation proposes recognition of Washington Accord accredited qualifications. Do you think this is appropriate? If not, what alternative approach do you suggest?

Yes, appropriate. But given many practitioners may have obtained their original qualifications quite some years ago, their needs to be the equivalence route for other non-Washington Accord qualifications, which is provided for in the Regulations.

15. Under Pathway 2 what criteria do you think the professional engineering body should satisfy to be eligible to perform their function?

The criteria set out in Clauses 44 to 51 seem reasonable and nothing needs to be added. However, in relation to the Clause 47 (b), under a co-regulatory system, it is the regulator who should set the PI insurance requirements and administer checking of whether engineers are carrying the requisite PI insurance, and not the professional body. Likewise, while the professional body should have disciplinary procedures, again it is the regulator who should set the major sanctions and penalties, particularly for criminal matters, which is the basis of a reasonable co-regulatory model as set out in the Warren Centre research based upon international evidence.
https://www.sydney.edu.au/engineering/industry-and-community/the-warren-centre/fire-safety-engineering.html

16. Would you be supportive of professional bodies developing a PSS for Pathway 3 to be available?

Yes, if there was sufficient interest from professional engineers to make it financially viable and sustainable.

17. Do you agree that Professional Engineers should be required to have 5 years of recent and relevant practical experience?

Yes, as for all registered practitioners

18. Do you support the proposed generic list of skills and knowledge requirements for all classes of engineering (excluding fire safety)? If not, please outline what you think the specific skills and knowledge for each class of engineer should be.

No, the generic list of skills and knowledge is not useful. It is too general and incomplete and adds no value to the regulations. Should be specific knowledge and skills for all classes of engineering.

For fire safety engineering, it is not clear why fire safety engineering is singled out in Clause 23 as to why fire safety engineering is singled out in a clause related to all classes of professional engineers. The specific requirements for knowledge and skills for professional engineer – fire safety engineering are similar to but with some differences from the requirements under Clause 12 for Design Practitioner – fire safety engineering. And given that a Design Practitioner – fire safety engineer can only be a Registered Engineer- fire safety engineering, these requirements would seem to best out only in one place, namely Clause 12.

If this approach is adopted, then any reference to fire safety engineering in Clause 23 should be removed. And in Clause 12, sub-clause (3) (c) should be amended to read:

"to assess the holistic performance of a fire engineering design and determine whether all fire safety design solutions, including any performance solutions, comply with the relevant Performance Requirements of the Building Code of Australia." Further, all reference to the International Fire Engineering Guidelines should be removed so as to accommodate potential alternative industry best practice should these guidelines not be kept current.

19. Do you support the proposal that all construction issued regulated designs must be lodged before any building work can commence? Why or why not?

Yes, this proposal is supported. It will encourage better standards of design and documentation, less variations, and less risks of builders and others trying to undertake designs and design variations when they are not competent to do so.

20. Do you support the Building Practitioner being primarily responsible for lodging regulated designs on the NSW Planning Portal? Why or why not? If not, who do you think should be responsible at the different lodgement points? Please explain your answer.

Agree. Every project will have a Building Practitioner, even if no Principal Design Practitioner, and it means there is one person is always responsible, with no split responsibilities leading to confusion or disputes.

21. Do you support the matters covered in the Design Compliance Declaration? Why or why not?

Yes. Particularly to ensure the designs of all practitioners are integrated and there is a holistic or harmonized design to ensure no critical elements are missed or designs or systems included which do not work effectively together.

22. Do you consider any other matters should be included in the Design Compliance Declaration?

No

23. Do you support the proposed title block? Are there any other matters that should be included in the title block?

No specific comment

24. Do you support the title block being available in a .dwg format?

No specific comment

25. Do you support the proposal that varied regulated designs be lodged within 1 day of the varied building work being commenced? Why or why not?

Yes, variations should be treated effectively as new designs and details lodged essentially before construction commences.

26. Do you support the proposal that the Building Compliance Declaration, regulated designs and variation statements be lodged prior to the application for the Occupation Certificate? Why or why not?

Yes, it is essential that the Builder is able to demonstrate before OC that the building has been design and constructed correctly and in accordance with the NCC/BCA and all appropriately designed variations. This is essential for occupant and general public health, safety and amenity, and owner contract requirements. Works which don't get completed before OC are often never completed properly.

27. Are there further matters that should be included in the Building Compliance Declaration? If so, what are they?

It is not clear whether design practitioners need to be involved in inspections and commissioning before OC and make declarations that their designs, for which they usually have special competence, have been properly constructed, installed and commissioned. Design Practitioners should play this role.

28. Are there further matters that should be included in the Principal Compliance Declaration? If so, what are they?

See answer to 27. above.

29. Do you support the approach proposed for insurance requirements for Design Practitioners and Professional Engineers? Why or why not?

The need for all Design Practitioners and Professional Engineers to carry insurance is totally supported. It is recommended that all practitioners carry a stated minimum of PI to make sure consumers have some level of financial support in the event of things going wrong. I doubt many small and sole practitioners will be able to accurately evaluate their liability and insurance needs properly. Individuals can then choose to increase their PI above the minimum limits of they wish.

Checks on insurance should be done of a consistent basis by Fair Trading as part of practitioner registration in a proper co-regulatory model.

30. Do you think additional insurance requirements should be prescribed for Design Practitioners and Professional Engineers? If so, what?

No

31. Do you support the proposed transitional arrangements that exempt Building Practitioners from being insured for issuing Building Compliance Declarations? Why or why not?

No. The same insurance arrangements should apply to Building Practitioners as it does to Design Practitioners. It seems no logic to exempting Builders. They are just as prone as design practitioners, perhaps more so, in making errors in construction, and they should not be able to absolve their responsibilities to consumers and the community by carrying no PI and other insurances.

32. Do you support the proposed CPD requirements for Design and Building Practitioners? Why or why not?

33. What types of training, education or topics would be relevant for the functions carried out by Design and Building Practitioners?

34. Do you support the proposed CPD requirements for engineers under Pathway 1?

35. Do you support the mandatory CPD topic areas? Why/why not? Please make any suggestions for amendments and explain why they are necessary.