

Design and Building Practitioners Regulation 2020

Stakeholder Feedback Template Form

This template has been designed to help you make a written submission as part of the public consultation on the Design and Building Practitioners Regulation 2020.

The template contains three sections to guide stakeholders to providing feedback on:

- [Regulatory Impact Statement](#)
- [Draft Design and Building Practitioners Regulation 2020](#)
- [Draft Continuing Professional Development Guidelines for Prescribed Practitioners](#)
- [Draft Continuing Professional Development Guidelines for Professional Engineers](#).

You don't have to give feedback on all sections and can feel free to choose which questions or fields that would like to fill in.

Submissions close 5:00pm 11 January 2021

Your Name: Tony Gleeson

Organisation Name: The Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH)

Date: 23 December 2020

About you

Please share information about yourself or the organisation that you are responding on behalf of. This information helps us work out what various groups think about the changes and how they will be affected.

If the reforms will affect the work you or your organisation does, please tell us what that work is.

If you think you will need to be registered as a Design Practitioner, Principal Design Practitioner, Building Practitioner or a Professional Engineer, please share details of your qualifications and experience.

If you are a member of the public, please share the reason you are interested in these reforms and how you learnt about them.

Please feel free to share any other details you think will help us develop these reforms.

AIRAH has operated since 1920, and is Australia's peak membership body for professionals and practitioners working in the heating, ventilation, air conditioning

and refrigeration (HVAC&R) – building services industry, a hidden, yet innovative industry that employs over 298,000 people in Australia, is worth \$38 billion, uses more than 24 per cent of the country's electricity and accounts for 13 per cent of our carbon dioxide emissions.

AIRAH's primary aim is to develop the competence and skills of industry practitioners so that they can better meet society's evolving health, safety and environmental demands, and the challenges of a rapidly changing world. AIRAH encourages world's best practice within the industry through continuing professional development, accreditation programs and a wide range of technical publications.

Our submission represents the perspectives of our members, who are predominantly mechanical engineers working in the HVAC&R – building services sector and who will be seeking professional registration when the scheme begins.

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?

As indicated in our response to the *Draft Design and Building Practitioners Bill 2019*, AIRAH strongly believes that the reforms should be expanded to other types of buildings over time. This includes office buildings, factory buildings, and major pieces of public infrastructure including freeways, railways, and bridges. These other building classes are equally important to the wellbeing of the people of NSW as Class 2 buildings, and equally important to the safety, sustainability and effectiveness of the built environment.

We believe that only by including all building classes can the NSW government can truly deliver on its promise to protect consumers and restore community confidence in the building and construction industry.

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?

Yes, we agree. It would be seen as too unreasonable to builders, engineers etc to retrofit for previous started and completed work.

Regulated design (page 17)

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

AIRAH notes that “under the Compliance Declaration Scheme, the obligations for Design Practitioners to provide compliance declarations will only apply for ‘regulated designs’ ”. We interpret this to mean that performance-based designs as permitted by the NCC/BCA are considered ‘regulated designs’; however, works that are Deemed to Satisfy (DTS), such as applying some Australian Standards and relevant sections of the BCA, would not.

The above description/definition should allow individuals who are not registered professional engineers to undertake most of their day-to-day work such as designing and certifying to parts of Australian Standards AS1668.1, AS1668.2, AS3666 etc. and some prescriptive BCA requirements. However, it would not permit them to undertake performance design including relatively common applications (such as the use of horizontal kitchen exhaust discharges or reduced carpark exhaust rates based on known vehicle movements etc.)

It may also cause some difficulty in applying BCA Specification E2.2b because there are some performance requirements within that specification that are not backed up with DTS solutions (e.g. Clause 5(a), which says “... with the maximum exhaust rate at any one point limited to avoid extracting air from below the smoke layer.” – but does not provide the necessary solution for meeting this performance criteria, which is provided in the 2015 edition of AS1668.1, but not yet referenced in the BCA).

AIRAH suggests that amenity-based performance solutions (such as horizontal kitchen exhaust discharges) could be acceptable whereas fire/life-safety solutions (such as alternate methods of smoke control) would not.

Furthermore, AIRAH would be very pleased to provide more detailed technical input on which standards related to HVAC&R – building services could be considered prescriptive and which work should be considered ‘building work’ as the legislation is developed.

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).

None that we can envisage.

Registration of Compliance Declaration practitioners (page 23)

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

The proposed classes of Design Practitioner seem appropriate, but consideration for review after a period (for example, 24 months) should be given.

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?

AIRAH's members are qualified and experienced mechanical and electrical engineers.

Consideration over time should be given to a category for engineers working in heating, ventilation, air conditioning and refrigeration (HVAC&R) – building services.

HVAC&R – building services is a unique branch of engineering that combines skills from both mechanical and electrical engineering. Equally, HVAC systems incorporate passive smoke and fire control measures that fall into the area of fire safety engineering.

HVAC&R – building services engineers cover all these areas, and we believe that it would be wise to have one sub-discipline for HVAC&R – building services engineers in the area of mechanical engineering, rather than requiring practitioners to obtain professional registration in three different areas.

Additionally, we believe specific mention should be made of refrigeration engineers in the area guidelines. Refrigeration systems are often incorporated into buildings – for example, cold stores and supermarkets within mixed use commercial/residential premises. These systems often include elements such as chillers and cooling towers, just like HVAC systems. We would recommend using the term HVAC&R – building services engineers rather than HVAC engineers.

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.

AIRAH notes that a Design Practitioner registered under a class of engineering must hold registration under the proposed Professional Engineers Scheme. Please see our response to question 14.

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

Registration should also consider practitioners' previous conduct and record in the industry to ensure there have been no infringements or adverse legal proceedings.

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

AIRAH agrees that practitioners should be required to have 5 years of recent and relevant practical experience.

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

AIRAH does not support this approach. It may be seen as a loophole and we need to provide confidence in the work done.

Registration of Professional Engineers (page 29)

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?

As indicated above, AIRAH's members are qualified and experienced mechanical and electrical engineers. Consideration over time should be given to a category for engineers working in heating, ventilation, air conditioning and refrigeration (HVAC&R) – building services.

HVAC&R – building services is a unique branch of engineering that combines skills from both mechanical and electrical engineering. Equally, HVAC systems incorporate passive smoke and fire control measures that fall into the area of fire safety engineering.

HVAC&R – building services engineers cover all these areas, and we believe that it would be wise to have one sub-discipline for HVAC&R – building services engineers in the area of mechanical engineering, rather than requiring practitioners to obtain professional registration in three different areas.

Additionally, we believe specific mention should be made of refrigeration engineers in the area guidelines. Refrigeration systems are often incorporated into buildings – for example, cold stores and supermarkets within mixed use commercial/residential premises. These systems often include elements such as chillers and cooling towers, just like HVAC systems. We would recommend using the term HVAC&R – building services engineers rather than HVAC engineers.

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

AIRAH supports a co-regulatory approach under which professional engineering bodies such as AIRAH could offer accreditation schemes that would then allow engineers to be registered with NSW Fair Trading.

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?

Registration should also consider practitioners' previous conduct and record in the industry to ensure there have been no infringements or adverse legal proceedings.

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

Because of a lack of engineering degrees that specifically deal with HVAC&R – building services, mechanical engineers working in this sector have over the years obtained widely differing tertiary qualifications. Many leading professionals in this sector – including some who provide input for the NCC and chair Australian Standards committees – do not have a Washington Accord accredited qualification in mechanical engineering. AIRAH recommends that alternative pathways to registration are provided for these people

As Australia's peak body for HVAC&R – building services engineers, AIRAH would be happy to provide input on what qualifications could be considered equivalent.

AIRAH also believes "grandfathering" will be an important issue for many of our senior members and that it will be necessary to provide guidelines on acceptability of "grandfathering".

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

AIRAH believes that the criteria for professional engineering bodies to perform their function should, as far as possible, be consistent across jurisdictions. This will assist in establishing this pathway for registration in a timely and rigorous manner.

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

Yes, AIRAH is supportive of this approach.

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

AIRAH agrees that Professional Engineers should be required to have 5 years of recent and relevant practical experience.

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.

Yes, AIRAH supports the proposed generic list.

Compliance Declaration Scheme: practitioner requirements (page 38)

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 – it provides a level of confidence in all parties involved.

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.

Yes, AIRAH believes this is a logical approach.

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

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

None at this point in time.

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

AIRAH supports the proposed title block.

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

Yes – this seems appropriate.

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

Yes, this provides a method of tracking from the start.

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, this will provide confidence.

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

None.

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

None.

Insurance (page 51)

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

Yes, as this is appropriate for any professional industry.

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

AIRAH does not consider that additional insurance requirements should be prescribed.

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

Yes, as the industry needs time to adjust.

Continuing professional development (CPD) (page 54)

32. Do you support the proposed CPD requirements for Design and Building Practitioners?

Why or why not?

Keeping in mind that engineers working in design will need to be registered under the Engineers Registration Scheme, we have provided feedback on the CPD system for engineers below.

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

AIRAH supports professional and structured learning including case studies/presentations, coaching from others, peer review, involvement in wider work of employer (for example, being a representative on a committee) etc.

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

AIRAH's ARPEng accreditation program requires a minimum of 150 hours of CPD over three years, as do the professional NER and RPEng accreditation schemes. We believe this ensures practitioners expand their knowledge, maintain up-to-date technical skills and progress their careers.

Although the proposed CPD system is roughly aligned with these requirements, we believe that a consistent approach to measuring CPD is preferable. The "points" system may add a layer of complexity without offering any benefit, particularly for practitioners working across other jurisdictions where CPD is measured in hours.

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

AIRAH supports the proposal to require engineers to complete compulsory CPD on their area of practice (including reinforcing and updating knowledge of the NCC), risk management, business and management skills, and other activities relevant to the engineer's career and interests, provided it is relevant to their work and class of registration.

Penalty notice offences (page 57)

36. Do you support the proposed penalty notice offences and amounts proposed in Appendix 1? Why or why not?

Yes – they are fair and reasonable.

37. Do you think the proposed penalty notice offences and amounts are fair and reasonable?

Yes.

Fees (page 59)

38. Do you support the reasons for the proposed fees? Why or why not?

Yes, as there needs to be value seen in the registration process.

39. What do you think NSW Fair Trading should consider in determining the fees?

Fees should be consistent across jurisdictions. We feel that the fees in Queensland are appropriate.

AIRAH recommends a system of automatic mutual recognition between states as proposed recently by the federal government. This would allow engineers to have their skills officially recognised across borders without the financial burden of registering in each jurisdiction.

40. Are you interested in being involved in targeted stakeholder consultation on fees?

Yes.

Proposed Design and Building Practitioners Regulation 2020

Please use this section to provide feedback on the proposed Regulation. Headings have been included to assist you in providing feedback on particular topics covered in the Regulation.

- 1. Part 2 – Regulated designs and types of work**
Requirements for regulated designs and compliance declarations, building work and professional engineering work
 - 2. Part 3 – Requirements for designs and building work**
Lodgement of designs and compliance declarations, requirements of principal design practitioners and building practitioners
 - 3. Part 4 – Registration of practitioners**
Applications and conditions of registration and registration obligations
 - 4. Part 5 – Recognition of professional bodies of engineers**
Applications and requirements for recognition or registration scheme
- There should be a commitment from all professional bodies to transition their members to a suitable alternative accreditation scheme if they are no longer able to operate as an assessment scheme.
- 5. Part 6 – Insurance**
Insurance for design and principal design practitioners, professional engineers, building practitioners and adequacy of cover
 - 6. Part 7 – Record keeping**
Record keeping for design and principal design practitioners, professional engineers, building practitioners
 - 7. Part 8 – Miscellaneous**
Authorised and penalty notice officers, exchange of information, transitional arrangements for insurance for building practitioners and qualifications for fire system designers and work done under existing arrangements.

8. Schedule 1 – Classes of registration

Classes of registration for practitioners and scope of work

As mentioned above, AIRAH's members are qualified and experienced mechanical and electrical engineers. Consideration over time should be given to a category for engineers working in heating, ventilation, air conditioning and refrigeration (HVAC&R) – building services.

HVAC&R – building services is a unique branch of engineering that combines skills from both mechanical and electrical engineering. Equally, HVAC systems incorporate passive smoke and fire control measures that fall into the area of fire safety engineering.

HVAC&R – building services engineers cover all these areas, and we believe that it would be wise to have one sub-discipline for HVAC&R – building services engineers in the area of mechanical engineering, rather than requiring practitioners to obtain professional registration in three different areas.

Additionally, we believe specific mention should be made of refrigeration engineers in the area guidelines. Refrigeration systems are often incorporated into buildings – for example, cold stores and supermarkets within mixed use commercial/residential premises. These systems often include elements such as chillers and cooling towers, just like HVAC systems. We would recommend using the term HVAC&R – building services engineers rather than HVAC engineers.

9. Schedule 2 – Qualifications, experience, knowledge and skills

For building practitioners, design practitioners, principal design practitioners and professional engineers

As mentioned above, Because of a lack of engineering degrees that specifically deal with HVAC&R – building services, mechanical engineers working in this sector have over the years obtained widely differing tertiary qualifications. Many leading professionals in this sector – including some who provide input for the NCC and chair Australian Standards committees – do not have a Washington Accord accredited qualification in mechanical engineering. AIRAH recommends that alternative pathways to registration are provided for these people

As Australia's peak body for HVAC&R – building services engineers, AIRAH would be happy to provide input on what qualifications could be considered equivalent.

AIRAH also believes "grandfathering" will be an important issue for many of our senior members and that it will be necessary to provide guidelines on acceptability of "grandfathering".

10. Schedule 3 – Continuing professional development

CPD for prescribed practitioners and CPD for professional engineers

11. Schedule 4 – Code of practice

Code for prescribed practitioners and code for professional engineers

AIRAH supports the adoption of a code of practice for registered engineers. In line with this, AIRAH requires its members to comply with a code of professional and ethical conduct. This provides guidance to members to assist them in carrying out their duties and responsibilities, and defines professional standards of conduct that AIRAH expects of its members.

12. Schedule 5 – Penalty notice offences

13. Schedule 6 – Forms

Design Compliance Declaration

14. General feedback

Any other comments you would like to make on the proposed Regulation.

Proposed Continuing Professional Development Guidelines (CPD Guidelines)

Please use this section to provide feedback on the proposed CPD Guidelines. There are two Guidelines we are seeking feedback on:

1. CPD Guidelines for prescribed practitioners (design practitioners, principal design practitioners and building practitioners) and,
2. CPD Guidelines for professional engineers.

Questions have been included to assist you in providing feedback.

CPD Guideline for prescribed practitioners

1. Do you consider that requiring practitioners to undertake three hours of CPD activity is appropriate? Why or why not?

Yes, as they will be also undertaking further CPD in order to retain their registration with AIRAH under the AIRAH Registered Professional Engineer scheme (ARPEng).

2. Do you support that CPD activities must be from the approved platforms? If not, please explain why.

For the three hours, yes. These will be common skills all practitioners need and best to get these from a single source.

3. Do you support the guidelines prioritising technical CPD activity (i.e., improving knowledge and understanding of the National Construction Code and Building Code of Australia) over other CPD activities? If not, please explain why.

We believe both are important to ongoing development. AIRAH supports CPD in the following areas:

TECHNICAL	HVAC&R building services industry technical knowledge.
LEADERSHIP	Strategic development, managing people, change management, ethical standards and other leadership-related development programs.
BUSINESS	Project management, business development, finance/business planning, OH&S and other business-related development programs.
PERSONAL	Team-work, relationships and interpersonal skills, and other personal development programs.

4. The Department is working with industry to develop courses that would assist practitioners. What courses or topic areas should be developed and available on the Construct NSW Learning Management System? We are particularly interested in providing courses that cover gaps in current learning content.

AIRAH offers courses in technical and non-technical areas.

In terms of technical courses, we have found strong demand in topics such as essential safety measures, fire dampers and smoke control, building ventilation and NCC updates.

We also believe that it is important to provide courses in non-technical areas such as risk management, agile project management and negotiation skills.

5. Are there any other general comments you would like to make on the Continuing Professional Development Guidelines for prescribed practitioners?

CPD is critical for ongoing success and confidence in the system for the government and the public.

CPD Guidelines for professional engineers

1. Do you support the proposed CPD structure and allocation of points? Why/why not? Please make any suggestions for amendments and explain why they are necessary.

Yes – many organisations have a similar structure.

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

Yes – the topic areas are suitable and appropriate.

3. Are there any activities that should be included/not included as:
- a) Formal education and training activities?
 - b) Informal education and training activities?

AIRAH recognises seven major types of CPD activities: formal post-graduate education; professional development education; conferences and technical meetings; leadership positions (professional participation activities); speaking (presentations); writing

(published works); and informal learning activities. We support a system that recognises these activities.

4. Structured training courses available from Construct NSW Learning System and from the Australian Building Codes Board are proposed to count for 2 CPD points. Do you support this approach?

Although AIRAH agrees on the importance of training courses from trusted providers such as Construct NSW Learning System and ABCB, we believe that an hours-based system rather than a points-based system will ensure better harmonisation of schemes across jurisdictions.

5. The Department is working with industry to develop courses that would assist professional engineers. What courses or topic areas should be developed and available on the Construct NSW Learning Management System? We are particularly interested in providing courses that cover gaps in current learning content.

As noted above, AIRAH has seen strong demand for technical topics such as essential safety measures, fire dampers and smoke control, building ventilation and NCC updates. We also believe that it is important to provide courses in non-technical areas such as risk management, agile project management and negotiation skills.

6. Are there any other general comments you would like to make on the Continuing Professional Development Guidelines for Professional Engineers?

None.