

Sunday, August 23, 2020

LEADING HVAC&R FOR 100 YEARS



Project Team
National Registration Framework for Building Practitioners

The Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH) appreciates the opportunity to provide input for the consultation on the National Registration Framework for Building Practitioners.

Although our submission was made through the ABCB consultation portal, this document contains AIRAH's answers to the online questions, as well as our other comments.

AIRAH is Australia's peak membership body for professionals and practitioners working in the heating, ventilation, air conditioning and refrigeration (HVAC&R) 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.

We trust that this information will be useful for the consultation and invite the project team to contact us if you have any questions.

Regards,

A handwritten signature in black ink that reads 'Anthony Gleeson'.

Tony Gleeson, M.AIRAH
AIRAH Chief Executive



General questions

Does the proposed NRF deliver an appropriate and proportionate response to BCR Recommendations 1 and 2?

AIRAH answer: Yes

Recommendations 1 and 2 of the BCR proposed the registration of building practitioners involved in the design, construction and maintenance of buildings, and that each jurisdiction prescribes consistent registration requirements covering knowledge of NCC, competency and experience, insurance and financial viability, and integrity.

Will the NRF, if implemented, enhance confidence in the building industry by ensuring that key practitioners in the building process are registered?

AIRAH answer: Yes

Do you foresee any risks in implementing this proposal, noting that the states and territories are responsible for implementation of the NRF?

AIRAH answer: No

Although the states and territories are ultimately responsible for implementing the NRF – or their own professional registration schemes that are harmonised with the NRF – we believe that establishing a national framework with minimum requirements is a positive first step.

Do you think the proposed NRF will improve compliance with the NCC?

AIRAH answer: Unsure

Registration on its own will not produce better outcomes. It needs to be supported by continuing professional development and compliance checks in the field.



NRF Discipline Specific Comments

Your comment relates to:

Mechanical design

Please comment in the areas specified below, including your reasoning and the relevant draft NRF page numbers.

Registration levels: 1

Descriptions/Definitions:

The definition of “Mechanical professional engineering design work” means “engineering work that requires, or is based on, the application of engineering principles and data to a design relating to mechanical engineering for a building other than engineering work that is done only in accordance with a prescriptive standard.”

We interpret this to mean that “Mechanical professional engineering design work” is performance-based design as permitted by the NCC/BCA and does not include works that are Deemed to Satisfy (DTS), such as applying Australian Standards and the relevant sections of the BCA.

Scope of work:

The above description/definition should allow individuals who are not a “Registered mechanical professional engineering designer” to undertake most of their day-to-day work such as designing and certifying to 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.

Qualification requirements

There appear to be some minor inconsistencies in respect to the required tertiary qualification of a “Registered mechanical professional engineering designer”. Page 24 says “Degree in Mechanical engineering, accredited to the Washington Accord, that includes approved NCC training, or Degree in mechanical engineering, accredited to the Washington Accord, plus approved NCC training”, whereas page 72 requires AQF 8 and does not include the “Washington Accord” requirement or the “approved NCC training”. Both consistently require 5 years of subsequent experience. Then at page 73 the “Washington Accord” requirement appears again.

One way to achieve an AQF 8 level of qualification is to gain an Honours Degree in Mechanical Engineering, which would comply with the Washington Accord – refer to pages 50-52 of the Australian Qualifications Framework (Second Edition January 2013).

Another way to achieve an AQF 8 level of qualification is to gain a Graduate Certificate, however, this would not comply with the Washington Accord – refer to pages 53-55 of the Australian Qualifications Framework (Second Edition January 2013).

Because of a lack of engineering degrees that specifically deal with HVAC&R, mechanical engineers working in this sector have over the years obtained widely differing tertiary qualifications. Many well-respected professionals – including some who provide input for the NCC and chair Australian Standards committees – do not have a degree accredited to the Washington Accord. AIRAH recommends that the Washington Accord requirement on pages 24 and 73 of the NRF is reworded to provide two pathways to registration.

Both pathways should include the “approved NCC training” and this would therefore need to be included on page 72.

Experience requirements

No comments



Any other comments for this discipline

Timeframe for implementation

For our members who currently hold a different tertiary qualification that does not comply with the Washington Accord, if there were a need to complete further education in order to maintain employment, it would be unreasonable to expect that they would need to undertake full-time education (4 years) in order to obtain the necessary Washington Accord recognised degree and then accumulate a further 5 years' experience. That is, it would be 9 years (during 4 of which they may have not income to support their families) before they could resume their current level of employment.

AIRAH recommends that the adoption of the NRF consider time for part-time upskilling and waiving the 5 years' experience for "grandfathers".

AIRAH believes "grandfathering" will also be an important issue for many of our senior members.

Page 13 says that "grandfathering" arrangements are outside the scope of the NRF; however, we believe that in order for the various states to agree on mutual recognition it will be necessary to expand the scope of the NRF to include "grandfathering" and to provide guidelines on acceptability.

Any acceptability criteria for "grandfathering" should include the "approved NCC training" that is required for a "Registered mechanical professional engineering designer".