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GM'S INTRODUCTION

Welcome to the latest edition of the ABRB which features many of the NCC 2016 changes that are also the subject of our recent road shows around the country, the National Seminar Series. Significantly it also represents the last annual edition of the NCC as the ABCB moves to a three-year amendment cycle. One of the key discussions and feature points of this particular edition is around the use of performance, which of course has been a focus of the reform agenda of the ABCB for the last couple of years, and is featured in the changes to the NCC around the general provisions.

The ABRB also focuses on new education and awareness tools that we are developing and will continue to develop as we move down the path of trying to assist practitioners and lift competency in their understanding of the Code.

We also talk about WaterMark, which is moving quickly towards its July release as an improved scheme and there are a number of features that we want to convey to practitioners of the plumbing industry that should not have a significant impact on the way they operate.

The ABRB also points to the key decisions that the Building Ministers' Forum recently made in regard to cladding and concerns around the fire risks of high rise buildings.



This will occupy quite a significant part of the ABCB's time moving forward. But I think one of the really key things to emphasise is that ultimately it comes down to industry and practitioners working closely together to ensure that they actually achieve compliance. The code can only go so far in telling practitioners what it is that they need to do. Beyond that it is up to individuals to make the right decisions and choices in order to ensure that design, construction and products are fit for purpose in terms of their application to different building projects.

We certainly hope you get a lot of value out of reading this set of articles and look forward to bringing the next edition to you in the near future.



NCC 2016 – OVERVIEW OF CHANGES

NCC 2016 brings some significant changes which will affect all users of the code. For readers who have not yet had the opportunity to get across it, this article provides an overview of the most important changes, including new General Provisions for all three Volumes, and major technical changes for both the BCA and PCA.

THE NEW NCC GENERAL PROVISIONS – ENGENDERING A PERFORMANCE MINDSET

The General Provisions, in Section A of each Volume (Section 1 in Volume Two), describe how the NCC operates; what the mandatory requirements are, and how they are met. In NCC 2016, the General Provisions have been re-written to make the performance-based format easier to understand by clarifying that only the Performance Requirements must be met — using the Deemed-to-Satisfy Provisions is just one option for doing this.

The changes mainly cover Part A0 (Volume Two, Part 1.0) which is now consistent across all three Volumes, and includes simpler descriptions of how the performance-based NCC applies, updated terminology — Alternative Solutions are now called Performance Solutions — and a new diagram to help understand the NCC compliance structure.

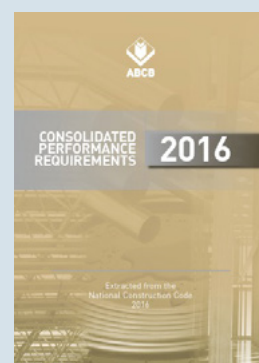
These changes flow on to the performance ‘hierarchies’ at the beginning of each Part of the NCC. Also, as part of the focus

on performance, the Objectives and Functional Statements for Volume One have been moved to the Guide; in Volumes Two and Three they are now Explanatory Information. This reflects the intention of the Objectives and Functional Statements, which is to provide guidance on the mandatory Performance Requirements.

Restructuring these parts of the NCC has helped put the focus back on performance, and is a key part of the ABCB’s drive to engender a performance mindset and promote innovation throughout the building, construction, and plumbing and drainage sectors.

NCC 2016 CONSOLIDATED REQUIREMENTS

As part of the NCC Suite for 2016, the ABCB has released an updated *NCC Consolidated Performance Requirements* which includes the new General Provisions and Performance Requirements for all three Volumes.



CHANGES AFFECTING VOLUMES ONE AND TWO

STRUCTURAL ROBUSTNESS VERIFICATION METHOD

A new Verification Method for structural robustness has been included as an option for compliance with the NCC. The Verification Method is a consequence of the Quantification of Performance Project. Consistent with other Verification Methods in the NCC, the new Verification Method is not a mandatory component, however may be used to demonstrate compliance with the Performance Requirements, where use of the Deemed-to-Satisfy Provisions may not be appropriate for a particular design. The structural robustness Verification Method complements the structural reliability Verification Method which was introduced into NCC 2015.

VENTILATION VERIFICATION METHOD

The Quantification of Performance project has also developed two new Verification Methods for ventilation. The first is specific to Class 1, 2, 3, 5, 6, 9b or 9c buildings or a Class 4 part of a building. The second Verification Method is specific to car parks and is only included in Volume One. Both Verification Methods consider the amount of outdoor air required to ensure contaminate levels of certain pollutants do not exceed the values specified in the Verification Method.

STAIR GOING AND RISERS

Clarification has been provided for what constitutes as ‘constant’ for stair going and risers. The amendment acknowledges atmospheric moisture change that affect material dimensions or movement in materials that impact the finished stair dimensions.

REFERENCED DOCUMENTS

A number of new referenced documents including Australian Standards have been adopted for NCC 2016, in addition to a large number of amendments to existing referenced documents. For a consolidated list of the amended referenced documents, refer to the list of amendments at the back of each Volume of the NCC.

CHANGES AFFECTING VOLUMES ONE

In addition to the changes listed above which affect Volumes One and Two, there are a number of changes specific to Volume One, including the following:

EFFECTIVE HEIGHT

Clarification added to the definition of effective height. The determination of the lowest storey providing direct egress to a road or open space has always been subjective. The defined term now refers to the determination method used to identify the lowest storey included in a calculation of rise in storeys. This simplifies the calculation method and aligns the two calculation methods. Identifying the highest storey remains the same.

TIMBER MID-RISE BUILDINGS

New provisions have been included to permit timber mid-rise buildings. Buildings which are Class 2, 3 or 5, sprinkler protected and not more than 25 m effective height can be built from timber provided the new Deemed-to-Satisfy Provisions are followed. This means that timber buildings which were limited to three storeys can potentially be built to eight storeys.

GROUP NUMBER DETERMINATION

The group number determination for the fire hazard property provisions now refers to a new referenced standard, AS 5637.1. The new standard contains a process to determine the most appropriate test to undertake for a certain product.

CARPARKS

The concession under C3.1 to exempt a vehicle ramp opening to comply with the protection of openings provisions of the Part has been amended. The concession now only applies if the connecting floors comply as a single fire compartment for the purpose of other Deemed-to-Satisfy Provisions in Section C, D and E. This may affect provisions such as E1.5 -Sprinklers.

VISIBILITY IN AN EMERGENCY

The Quantification of Performance project recognised that EP4.1 was potentially preventing innovation by limiting visibility in an emergency to that provided by lighting only. Therefore ‘lighting’ has been replaced with ‘visibility’ to enable innovation through alternative systems.

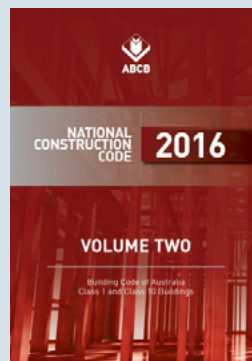


FARM BUILDINGS AND FARM SHEDS

Provisions for farm buildings and farm sheds have been introduced in a new Part – Part H3. The provisions provide a number of concessions to the Deemed-to-Satisfy Provision in Sections C, D, E and F. The new Part acknowledges that certain farm buildings may require additional levels of safety than a Class 10a building, however may not require the level of stringency of a Class 7 or 8 building.

CHANGES AFFECTING VOLUME TWO

In addition to the changes listed above which affect Volumes One and Two, there are a number of changes specific to Volume Two, including the following:



DWELLING ABOVE A NON-APPURTENANT CLASS 10a PRIVATE GARAGE

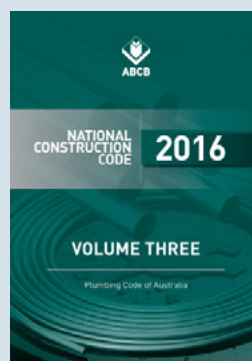
Prior to NCC 2016, Volume Two did not have specific fire-separation provisions where a private garage was located below a non-appurtenant dwelling. A new provision has been included to require fire-separation for the floor separating the non-appurtenant dwelling and private garage.

CLASS 10a SMOKE ALARMS

Where a smoke alarm is installed in a Class 10a private garage and is likely to cause spurious signals (false alarms) an additional option has been included to allow any other alarm deemed suitable in accordance with AS 1670.1 provided smoke alarms are installed elsewhere in the Class 1a building. This option is consistent with similar provisions in Volume One.

CHANGES AFFECTING VOLUME THREE – PCA AND WATERMARK

For 2016, there are two major changes to Volume Three: these are the restructuring of Parts A2 and G1 to implement the improved WaterMark Certification Scheme; and the adoption of the 2015 editions of AS/NZS 3500 Parts 1 to 4 within the PCA Deemed-to-Satisfy Provisions.



PARTS A2 AND G1 RESTRUCTURED

The improved WaterMark Certification Scheme — supported by the Building Ministers Forum in July 2015 — will, among other things, create a single level scheme and consolidate the myriad scheme administrative documents into a single source, within the ABCB website. For the PCA, this means that Part A2 now includes at A2.1 a delineation between which products require WaterMark certification and which products are excluded, and at A2.2 separate evidence of suitability requirements for included and excluded products.

Table A2.1 has been removed as its role has been consolidated into the website. Moving these parts of the scheme out of the PCA and onto the website will enable it to better keep pace with the rapid changes in plumbing products technology. For the same reason, the procedural and administrative content from Part G1 has now also been consolidated, meaning that Part of the PCA has also been removed. Explanatory Information has been retained in its place to give a general overview of the scheme.

TRANSITIONAL PROVISIONS – WATERMARK

It is important to note that while PCA 2016 will take effect in all States and Territories from 1 May, the improved WaterMark Certification Scheme is not expected to be fully implemented until later this year. To cover this, a transitional clause (A2.0) has been included in the PCA to allow the content of Part G1 from 2015 to continue to be used until this time.

AS/NZS 3500 PARTS 1 TO 4: 2015 ADOPTION

Since 2011, the PCA has referenced the 2003 editions of AS/NZS 3500 Parts 1 to 4. Following a review by the ABCB, these Standards have now been revised and re-issued by Standards Australia, with many changes made to improve their suitability for regulatory use and their compatibility with the PCA.

From 1 May 2016, the revised Standards will be adopted by the PCA (see Table A3.1) and as such will be able to be used wherever a PCA Deemed-to-Satisfy Provision refers to the Standard. Importantly, there are some requirements (e.g. flushing volumes) which aren't in the Standard anymore; this does not mean they have been abolished, only that they are now regulated directly through the PCA (e.g. B1.5).

Unlike the 2003 editions, these new Standards are intended only to be used in combination with the content of the PCA, not as stand-alone documents, so from 2016 it's going to be more important than ever to be familiar and up to date with both.

HIGH RISK BUILDING PRODUCTS UPDATE

The Building Ministers' Forum (BMF) met in February 2016 at the Gold Coast. As part of this meeting, safety issues associated with high risk building products were discussed. Ministers agreed to work cooperatively to implement a range of measures to address these issues.

In particular, Ministers agreed that the ABCB examines measures to address the risks specifically associated with cladding used in high rise buildings.

An outline of the measures being undertaken by the ABCB and the BMF Communique is available on the ABCB website.

WWW

IMPROVED WATERMARK CERTIFICATION SCHEME UPDATE



The ABCB is continuing to develop the key documentation and system improvements required to introduce the improved WaterMark Scheme on 1 July 2016.

It is important to note that many of the changes are administrative and procedural in nature, affecting in the main the ABCB as administrator of the Scheme, the State and Territory regulators who are responsible for the Scheme's compliance, and the WaterMark Conformity Assessment Bodies in the way in which they certify products.

Other features of the Scheme will be implemented over an extended timeframe to allow for industry adjustment and transitional arrangements for products affected by the Scheme.

The ABCB has and will continue to engage with representatives of stakeholder groups in the development and implementation of aspects of the Scheme.

IMPROVED SCHEME STATUS

The following activities, which have been the focus of work since July 2015, are nearing completion:

- Finalising the detail of the Scheme objectives and scope;
- Finalising the revised risk assessment process;
- Finalising the new single level Scheme design;
- Finalising the Scheme Rules and documentation including:
 - referenced documents, agreements and procedures;
- Establishing specification development processes; and
- Establishing detail requirements for the new product database.

The ABCB will soon commence the following activities:

- Developing and testing the new product database;
- Revising the Schedule of Specifications and List of Exempt Products;
- Establishing cost recovery arrangements;
- Establishing communication, marketing and education strategies; and
- Establishing transition requirements for stakeholders and products.

Once the above items have been completed the following tasks can commence:

- Review existing plumbing product status, based on risk assessment process after Scheme is launched; and
- Undertake comprehensive review of technical specifications over the next five years.

IMPLEMENTATION AND TRANSITION TIMEFRAME

The WaterMark Scheme Rules are being removed from the PCA and a number of other reference documents, and consolidated into a single document that will be available on the ABCB website. As part of the changes to NCC 2016 (to be adopted on 1 May), transitional provisions have been included in Part A2.0 of PCA 2016 to allow the contents from Part G1 of PCA 2015 to continue to be used until the Scheme is fully implemented.

It is intended that the improved Scheme will be launched on 1 July 2016, which will include important transitional arrangements for those affected by the Scheme.

The new product database will be launched soon after and a full cost recovery model for the ABCB's administration of the Scheme will be progressively introduced from 1 January 2017.

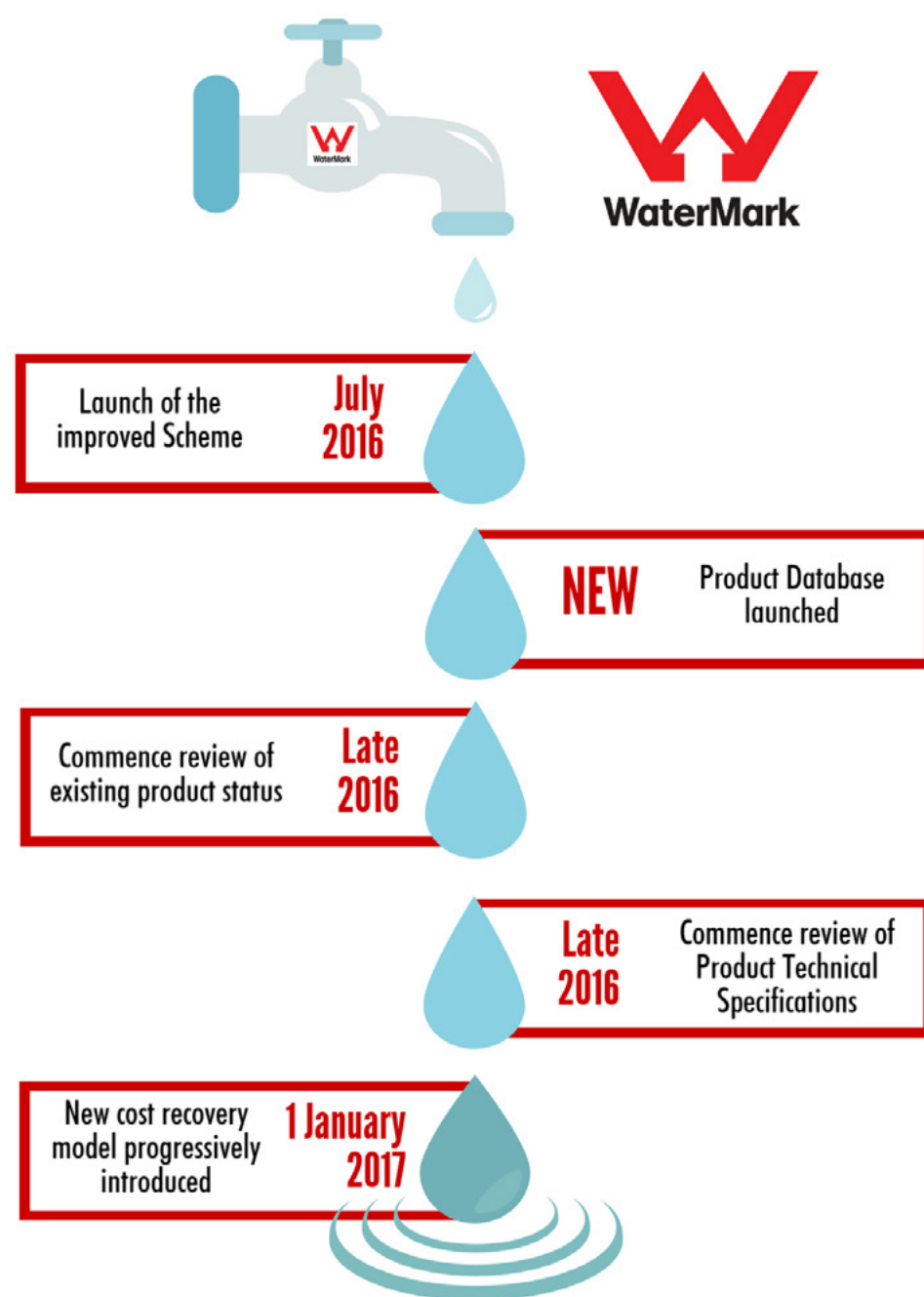
It is estimated that it will take up to two years to fully transition to the new Scheme as the necessary infrastructure is introduced, current certificates are renewed and industry adjusts. This means that as of 1 July 2016 the majority of Scheme stakeholders will not experience substantive material changes.

Changes to Scheme requirements that will impact on stakeholder practice, compliance and/or enforcement will be

introduced incrementally, with appropriate lead and transition times as determined in consultation with affected parties (ie manufacturers and suppliers, Master Plumbers Association, WaterMark Conformity Assessment Bodies, Joint Accreditation System of Australia and New Zealand (JAS-ANZ), Standards Australia, National Association of Testing Authorities, Australia (NATA), testing laboratories and the State and Territory Plumbing Administrations).

It is intended that regular updates of how implementation is progressing will be provided through the ABCB website.

www



UNTANGLING PERFORMANCE IN THE PCA

The Plumbing Code of Australia (PCA) Performance Requirements, with some minor exceptions, were developed prior to its adoption as Volume Three of the NCC. They, and the PCA itself, were also developed to align with the various forms of plumbing and drainage systems as they are applied within the industry. This resulted in separate performance criteria for each of those individual systems which were very similar and in some cases, the same.

Take a look at cold water; heated water; non-drinking water; sanitary plumbing and sanitary drainage; and roof drainage and surface/subsurface drainage; and you'll get the idea.

Under the ABCB's Intergovernmental Agreement (IGA), the goal of the NCC (including the PCA) is to address issues of safety and health, and amenity and sustainability in the construction and performance of buildings (including plumbing and drainage systems), through nationally consistent, minimum necessary, regulatory and non-regulatory solutions.

However, because it was developed prior to being included in the NCC, aspects of the PCA Performance Requirements also deal with issues outside the IGA, such as property protection, ongoing maintenance, and requirements which go beyond what would be considered 'minimum necessary' regulation in the broader NCC context. There are also requirements in the PCA that delegate to external authorities to set compliance criteria (e.g. "...as required by the authority having jurisdiction").

Now, considering there is such a strong focus by the ABCB on increasing the use of performance in the NCC, the general useability of the NCC, and the increasing numbers of NCC users, it is considered that a review of the current structure is warranted.

To inform the review, the ABCB will soon be releasing a Discussion Paper. This article gives a preview.

FUNCTION OVER FORM – REDUCING REPETITION AND COMPLEXITY

For the PCA, there are around 172 mandatory Performance Requirements; so what if this could be reduced with no compromise on safety, health, amenity or sustainability? It is possible, and it can be achieved if the Performance Requirements of the PCA were focussed more on the functions of plumbing and drainage systems, rather than form.

'Function' is essentially what a system must achieve in order to satisfy the Performance Requirements. These 'functions' are generally described in the Objectives and Functional Statements, (provided in the Explanatory Information in the PCA). For example, a function would be to 'facilitate the efficient use of drinking water', because when that happens the overarching Objective to 'conserve water' is achieved.

Form, on the other hand, is the type of plumbing or drainage system being referred to. Forms include 'cold', 'heated', 'non-drinking' and 'fire-fighting' water services etc., and 'sanitary



plumbing' and 'sanitary drainage' systems. All of these descriptors have specific definitions, yet they don't necessarily convey anything about the required function of the systems. That is, we know that cold water and heated water systems are different, but what is less clear is that often their required functions are the same — for example, these two forms of water service are subject to the same water efficiency requirements, so why not just describe this function once for both relevant forms of water service?

DISCUSSION PAPER AND PUBLIC CONSULTATION PERIOD

The Discussion Paper, titled Consolidating the PCA, will explore a number of options to make the Performance Requirements more user-friendly, less repetitive, and also better aligned to current regulatory priorities. Initially, these options may include —

- Consolidating the PCA Performance Requirements;
- Reviewing the PCA Performance Requirements against the IGA Goals;
- Developing new Performance Requirements.

Its purpose will be to gauge stakeholders' views and identify whether there are other possibilities. After all, the intention is not to erode the Code, but to improve its useability and functionality for practitioners and regulators.

The Discussion Paper will soon be released for public comment on the ABCB website for a period of 12 weeks.

For enquiries, please email: ncc@abcb.gov.au (subject line: 'PCA Review').

INTRODUCING OUR NEW RESOURCE LIBRARY!

www

Following the recent major building regulatory reform including free online NCC access, the ABCB launched its new look website, www.abcb.gov.au. This website has been designed to improve access to the NCC Online and allow visitors to easily navigate through the site to find the information they are looking for. The most significant new feature of the website is the Resource Library.

SEARCHING FOR MATERIAL HAS BECOME SIMPLER

Over the years, the ABCB has produced a range of valuable materials to assist practitioners in the building and plumbing industry to further improve their skills and knowledge of code related issues. The library contains all ABCB resources, including:

- the NCC and archived editions;
- consultation documents;
- handbooks;
- ABCB standards;
- tools and calculators;
- videos;
- education resource kits; and
- other corporate publications.

In addition, the library also provides access to relevant product certification documentation from the WaterMark and CodeMark Certification Schemes.

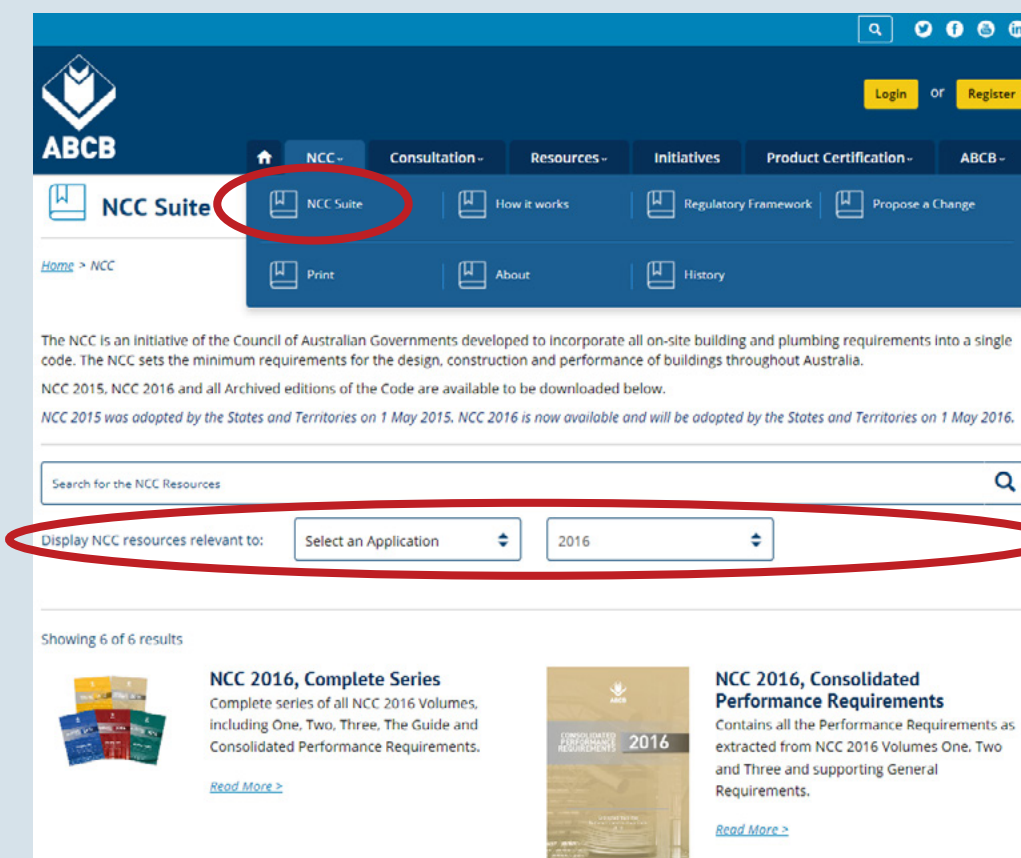
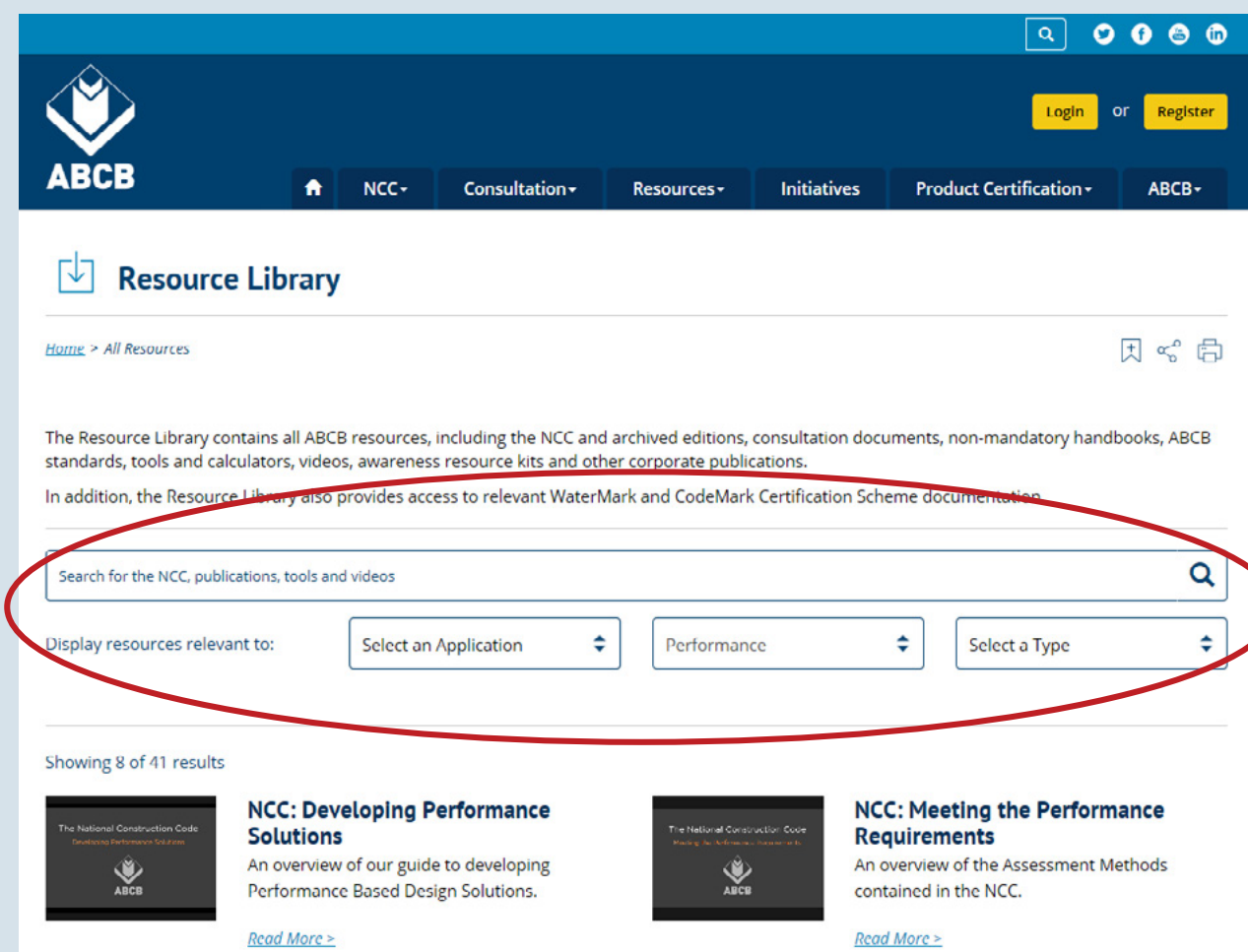
With over 300 resources available, the resource library contains a sophisticated filtering function in addition to the traditional key word search. Users can sift through material by using the key word search bar to find relevant resources, or filter by Application, Topic or Type in search of supporting material.

Application refers to the NCC Volume or type of building.

Topic refers to popular topics, such as fire, energy efficiency, performance and WaterMark.

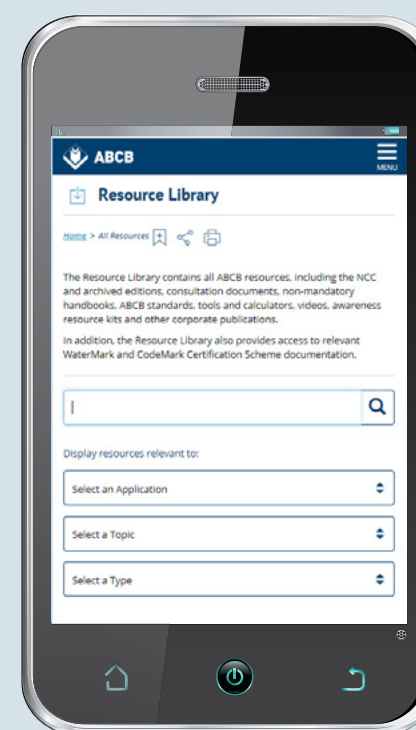
Type refers to the resource type, such as corporate publications, guidance material, videos and WMTS and notices.

All content and material is freely available for download.



MOBILE DEVICE FRIENDLY

For users on the go, the website is now easily accessible from mobile devices. In keeping with latest technology trends, the website design adapts to your device, be it a smart phone or tablet. The view is slightly different from the desktop view, but still incorporates all the features and information contained within the website.



LOOKING FOR NCC 2016?

As the primary role of the ABCB is to maintain and update the NCC, the ABCB has further enhanced the user experience. Similar to the new Resource Library, a one-stop-shop for all current and archived editions of the Code has been developed, the NCC Suite.

Within the NCC Suite, users will find the current NCC 2015 edition, accessible through NCC Online or as a downloadable PDF, as well as the NCC 2016 preview and all archived editions of the NCC.

In addition users have the ability to use a key word search, or filter by Application and Year to find the relevant NCC volume.

NCC users are required to register (new), or login (existing) to access the NCC 2016, NCC 2015 and all archived editions.



CODE CHANGES GIVE OPPORTUNITIES TO THE TIMBER, DESIGN AND CONSTRUCTION INDUSTRIES

Written by David Simpson
WoodSolutions

The implications of the recent timber-related changes to the NCC affect almost the full length of the supply, design and construction chain. This article provides a brief overview of the background of the Proposal for Change and some of the implications for those affected by the change. It ends with a look at where the change positions Australia among other advanced countries.

Changes to the NCC and in particular the Building Code of Australia (BCA), effective from May 1st 2016, will enable buildings of up to 25 m in Classes 2 (apartments), 3 (hotels), and 5 (offices), to use quantified Deemed-to-Satisfy (DtS) Provisions for both timber framing and massive timber building systems. Typically up to 8 storeys and referred to as mid-rise construction, the residential applications of these buildings are expected to play a significant role in urban infill in Australia's larger cities.

Momentum for the Code change started more than three years ago, with a discussion about the Building Code and the timber industry, explained Ric Sinclair, Managing Director of Forest and Wood Products Australia Ltd (FWPA). "We realised the move to three storey timber buildings was significant, but it needed to go further." The team, led by Boris Iskra, National Manager Codes and Standards for FWPA, Paul England from EFT Consulting, and Andrew Dunn from Timber Development Association of NSW, set about formulating a strategy for their Proposal for Change (PFC). Their aim was to take an evidence-based, consultative and inclusive approach.

The PFC solution was based on extensive research and comprised the use of appropriate layers of fire-resistant plasterboard – fire-protected timber – and the installation of compliant fire sprinkler systems.

Consultation was wide-ranging and inclusive, an approach Ric credits to the success of the proposal. It was developed in conjunction with representatives of the timber and building industry professional bodies, regulators and fire and emergency authorities.

"Another important factor in our success," explains Ric, "was that we had already built relationships with the key building specifier organisations through our WoodSolutions program." This means groups like the Australian Institute of Building Surveyors, Engineers Australia, and the Property Council of Australia were consulted and their needs accommodated. This resulted in a better proposal that was not only more



likely to achieve the desired Code change, but also to be more workable and well received into the future.

"I'd also like to thank the Australian Building Codes Board because they were very receptive to our process," Ric concluded.

News of the success of the proposal for change was met with enthusiasm from the timber industry.

"This Code change is one of the biggest things that has happened to our sector for 30 years," said Eileen Newbury, Marketing and Communication Manager at FWPA, "now we need to provide specifiers with the knowledge to confidently implement the changes."

FWPA's plan for effectively communicating the change involves a range of approaches and resources, beginning with a national workshop series on 1 March 2016. These will be delivered through industry bodies including the Australian Institute of Building Surveyors (AIBS), the Australian Institute



of Architects (AIA), Building Designers Australia (BDA), the Building Designers Association of Victoria (BDVA) and fire engineers through Engineers Australia (EA).

By initiating more than thirty CPD workshops and related events FWPA aims to ensure design and build professionals are well-informed by the time the Code comes into effect on 1 May 2016.

Alongside the workshop series, FWPA is also producing two free WoodSolutions *Technical Design Guides* that will be available to those who attend the presentations and online through the WoodSolutions website.

Kevin Ezard from Frame Australia commented that the DtS approach will significantly reduce current regulatory requirements, lower costs of engineering and architectural and planning documentation, and should encourage improved productivity through prefabricated construction solutions for both lightweight and massive timber building.

Kevin's opinion is reinforced by the results of FWPA's Market Access research project "Increasing deemed to satisfy height limits for timber construction - Cost benefit analysis" that estimated in 2013-14 the market value of multi-residential construction between four and eight storeys was \$6.6 billion and office building within the same height \$2.8 billion, a total of \$9.4 billion.

Over the next decade, the project estimate for market share penetration of timber framed construction was five percent. The estimate for annual growth in multi-residential was also 5%, and that of office construction 3%. Using these annual growth rates the value of multi-residential timber framed construction was modelled to rise to some \$510 million per year.

Commenting on the recent changes involving timber construction, Greg du Chateau, a principal at building surveyors du Chateau Chun, said that it was a new initiative in the BCA which building surveyors will need to become familiar with, particularly the new Deemed-to-Satisfy Provisions.

"You'll find differing views in the industry, he said, but I'm an advocate for prescriptive, DtS solutions," he said, "because they are usually easier for designers, engineers and builders to understand and implement."

Nick Hewson, a Senior Structural Engineer with Aecom, said, "the changes will make it easier for builders and designers to consider timber construction and removes another barrier to the approval of timber buildings. It will give confidence to developers to pursue timber as a construction method".

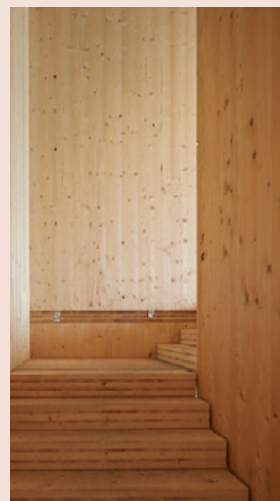
Peter Maddison, a director of Maddison Architects, ambassador for the Planet Ark-endorsed Environmental Edge campaign and the host of Grand Designs Australia, likes the idea of timber-built mid-rise residential buildings next to each other, each four, five, six or seven storeys.

"A connection between the people and the ground develops. It's really nice when the apartments are at the height of the trees so there is a connection to the earth. You want to be able to wave to someone on the ground."

Internationally, many countries including the UK, Canada, USA, Finland and Sweden have implemented, to varying degrees, changes to their building codes to make it easier to construct taller timber projects. Additionally, countries such as France, Japan and Canada – and some of our own local government authorities, led by Latrobe City Council, have implemented versions of 'timber first' policies.

So from code changes to industry developments, professional adoption and procurement policies, it looks like that for timber – in part due to the code changes - the only way is up.

For general inquiries, please go to the WoodSolutions website or to Boris Iskra, Codes and Standards Manager at boris.iskra@fwpa.com.au.



THE NCC—A PERFORMANCE BASED CODE

The NCC is a performance based code providing options and flexibility when developing compliance solutions. These solutions are used to achieve compliance with the Performance Requirements. This compliance structure, from the General Requirements in the NCC, is shown below.

GENERAL REQUIREMENTS

Each Volume of the NCC contains mandatory General Requirements¹. They contain information about applying the NCC. They include:

- Interpretation (defined terms);
- Referenced documents (standards);
- Acceptance of design and construction² (documentation); and
- Classification of buildings (building types).

The General Requirements are located in Section A of NCC Volumes One and Three, in Part 1 of Volume Two, and are reproduced in the Consolidated Requirements document.

PERFORMANCE REQUIREMENTS

The mandatory Performance Requirements specify the minimum level of performance for all buildings, and plumbing and drainage installations. They are supported by the General Requirements.

The Performance Requirements are found in:

- Sections B to J of NCC Volume One;
- Section 2 of NCC Volume Two;
- Sections B to G of NCC Volume Three; and
- The main body of the Consolidated Requirements document.

COMPLIANCE SOLUTIONS

Compliance solutions are used to achieve compliance with the Performance Requirements. They may be simple or quite complex depending on the design, materials, components and construction methods needed. A compliance solution may be a:

- Performance Solution;
- Deemed-to-Satisfy Solution; or
- combination of both.

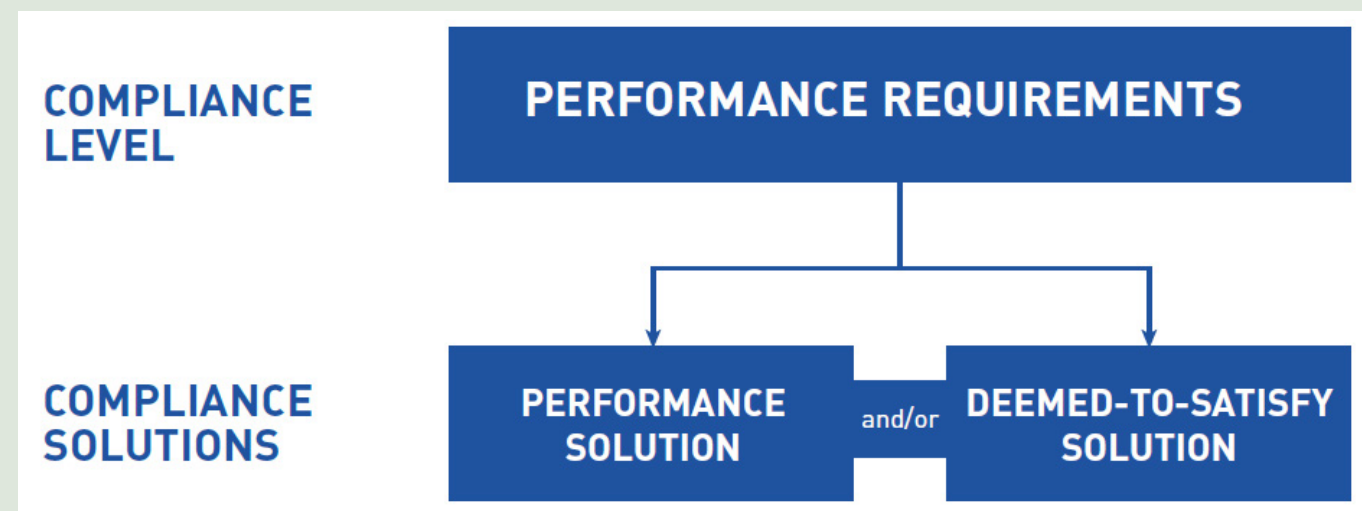
In addition to the choice of compliance solution, practitioners have a choice in how compliance is shown. Assessment Methods, as described in the General Requirements are used to show that the solution meets the Performance Requirements. The Assessment Methods include:

- Methods described in the evidence of suitability provisions³;
- Verification Methods;
- Expert Judgement; and
- Comparison with the Deemed-to-Satisfy Provisions.

Evidence of suitability is the most commonly used Assessment Method and applies to both Performance and Deemed-to-Satisfy Solutions.

PERFORMANCE SOLUTION

A Performance Solution may be used to meet one or more of the Performance Requirements.



¹ General Requirements are known as General Provisions in NCC Volumes One and Three.

² including related evidence of suitability.

³ Evidence of suitability provisions are clause A2.2 in NCC Volume One and Three and clause 1.2.2 in NCC Volume Two.

All Performance Solutions need to consider:

- The Performance Requirements that apply to the solution;
- How the solution meets the Performance Requirement/s (or achieves equivalence to the Deemed-to-Satisfy Provisions⁴); and
- Impacts on other Performance Requirements (or Deemed-to-Satisfy Provisions).

The NCC contains means of verifying Performance Solutions for some Performance Requirements. They are called Verification Methods.

DEEMED-TO-SATISFY SOLUTION

A Deemed-to-Satisfy Solution is a standardised compliance solution. It is based on the Deemed-to-Satisfy Provisions contained within the NCC which are “deemed” to meet the Performance Requirements. The start of each part of the Deemed-to-Satisfy Provisions shows the link to the Performance Requirements. This is found in the NCC under the:

- “Deemed-to-Satisfy Provisions” clauses in Volumes One and Three; and
- “Appropriate Performance Requirements” clauses in Volume Two.

⁴ Equivalence to the Deemed-to-Satisfy Provisions may be useful when working with unquantified Performance Requirements.

The Deemed-to-Satisfy Provisions also commonly refer to Australian Standards and other referenced documents. Many practitioners commonly use this approach to develop a compliance solution.

CHOICE

A performance based code allows choice in how you arrive at a building or plumbing solution. Whilst the minimum level of health, safety, amenity and sustainability is set in the NCC Performance Requirements, there is choice in how compliance is achieved.

As shown by the different compliance solutions available, the NCC provides flexibility for practitioners to develop the most appropriate solution to meet their needs. Whether it is a prescriptive Deemed-to-Satisfy Solution or a more innovative and unique Performance Solution the NCC as a performance based code is all about facilitating the best solution for Australian buildings.

WANT MORE INFORMATION

The ABCB provides a range of supporting materials to help develop compliance solutions. These materials are available through the Resource Library on the ABCB website.

INTRODUCING THE CONSOLIDATED PERFORMANCE REQUIREMENTS...

The release of NCC 2016 sees a new document as part of the NCC suite. This document is the Consolidated Performance Requirements, otherwise known as the Consolidated Requirements.

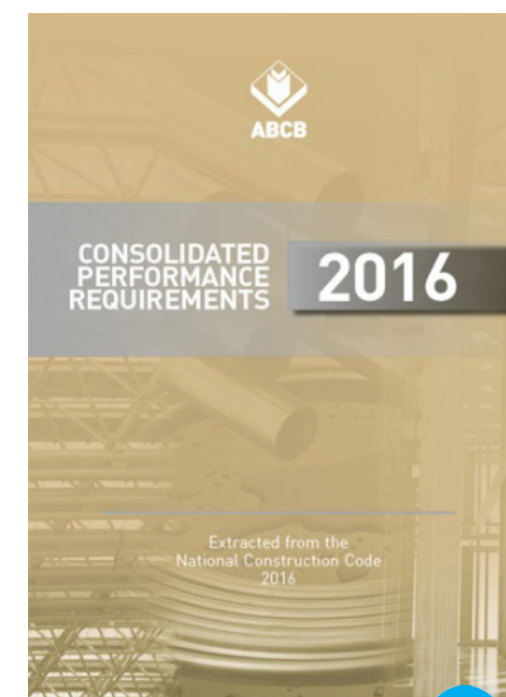
The Consolidated Requirements highlights the mandatory requirements of the code. It includes content extracted and consolidated from NCC Volumes One, Two and Three. The main content includes the:

- General Requirements;
- Performance Requirements; and
- State and Territory Additions and Variations relevant to these requirements.

It is provided as a guidance document to support the NCC.

It is hoped that by highlighting the mandatory requirements of the NCC, users will improve their understanding of the NCC as a performance based code. This greater understanding should also facilitate the increased use of performance based solutions.

The Consolidated Requirements is now available for download from the ABCB website.



WWW

ABCB BOARD MEMBER PROFILE

Murray Thomas
CEO
Master Plumbers Group
Current Board member since 2011



CAN YOU TELL US ABOUT YOUR ROLE ON THE BOARD?

I was appointed to the position of ABCB Plumbing Industry Representative in 2011. This was a new position created on the Board when the decision by COAG was made to amalgamate the Building Code of Australia and the Plumbing Code of Australia.

COAG decided that it was necessary to have a consistent national approach to building and plumbing via the National Construction Code reform process.

I have worked extensively in the plumbing industry for 40 years as a plumbing contractor and administrator. I am very honoured to have been chosen to represent and speak on behalf of the industry with the other 4 industry representatives, Commonwealth, State, Territory and Local Government representatives on the Board.

WHAT DO YOU SEE AS SOME OF THE EMERGING ISSUES FOR THE BOARD?

The regulation of plumbing and plumbing products via the newly integrated and enhanced WaterMark scheme has never been easy, especially where regulations differ across state boundaries. The plumbing industry is very passionate and proud to have set exceptionally high standards on a world scale.

With regard to the safe supply of drinking water and the safe disposal of effluent, the ABCB has played a huge role in bringing Australia together via the Plumbing Code of Australia. It is essential that the communication channels are open at all levels through various Standards Australia Committees, the Plumbing Codes Committee and the Board.

Sustainability measures, innovation and new technologies are advancing at such a rapid rate we must encourage innovation and ensure, via regulation, that the community's health and safety is protected.

CAN YOU TELL US ABOUT YOUR PROFESSIONAL BACKGROUND?

I have been the CEO of the Master Plumbers and Gasfitters Association of WA for the past 10 years. Prior to commencing this role, I was involved in all sectors of the plumbing industry including housing, commercial and maintenance. I have held a plumbing contractors and gasfitters licence for 30 years working throughout Western Australia and the Northern Territory in remote communities and major cities.

In 1992 I became the Plumbing Training Manager of the first Private Registered Training Organisation delivering plumbing training in WA. I have also worked for a major retail group in establishing their range of sustainable products in water reuse, water saving and solar for the Australian market.

Currently, I am very proud to say I love my job as the CEO of the MPA Group. We have a strong industry association that trains both apprentices and post trade students and our Group Training Organisation employs 250 apprentices.

GIVEN YOUR EXPERIENCE WORKING IN THE INDUSTRY, WHAT HAS BEEN THE MOST CHALLENGING PART?

Plumbing and gasfitting technology has come a long way since I began in the industry years ago. From earthenware pipes to PVC and polymers, concrete troughs and a whole different way of heating water, the industry is ever-changing.

Plumbing and a plumber's scope of work is also ever-increasing. Although most plumbers specialise in a sector of the industry, it is important that our apprentices are taught a broad range of skills in water, sanitary, drainage, roofing, gas and in some states mechanical services. The Plumbing Code of Australia goes a long way to ensuring that the scope of a plumber's work is maintained and that their skills and licence/registration are transportable across all jurisdictions.

DO YOU THINK THERE IS ENOUGH DIVERSITY WITHIN THE INDUSTRY'S WORKFORCE? IF NOT, HOW DO YOU THINK THIS CAN BE IMPROVED?

There is a very low percentage of women that work on construction and commercial building sites around Australia. We are looking to turn that percentage around via various training programs and promotions. Several women run successful plumbing and gasfitting maintenance businesses and women generally dominate plumbing retail outlets and are specialists in this field.

I think the current plumbing training package provides a suite of skills to ensure that plumbers can be diverse and adapt to innovation and new technologies. The industry nationally has been very consistent with its direction that it does not want

to be broken down into segments. Continual professional development in some form that assists the plumbing industry in keeping up with innovation and change on an ongoing basis would be beneficial in my opinion.

WHAT ADVICE WOULD YOU GIVE TO SOMEONE WANTING TO HAVE A CAREER IN THIS INDUSTRY?

To anyone looking to enter the building and construction industry, my advice is look no further than becoming a plumber and gasfitter. It is a fantastic, dynamic industry, one that I can highly recommend.

If you or someone you know wants to know anything about pathways and how to become a plumber in your state or territory, go to the Master Plumbers Australia website or contact your local Master Plumbers Association.

NEW VENTILATION VERIFICATION METHOD HANDBOOK – COMING SOON!



The ABCB is in the process of preparing a handbook to provide background information on the Ventilation Verification Method (VM) and to assist stakeholders in understanding how to use it.

People who recently attended the NCC 2016 National Seminars or who have previewed NCC 2016 on the ABCB website would have discovered that a new VM has been included in NCC 2016.

The new Ventilation VM is part of the ABCB's initiative to increase the use of the NCC Performance Requirements. Including measurable Performance Requirements in the NCC (either by quantifying the Performance Requirements directly, or including measureable VM's) will lead to increased productivity and better building outcomes.

Therefore, to satisfy the NCC 2016 ventilation provisions, a Performance Solution can now be developed using a Verification Method.

The Performance Requirements in question, NCC Volume One FP4 and NCC Volume Two P2.4.5, are about ventilating a space within a building so that acceptable indoor air quality is achieved. The Ventilation VM will be limited to Class 1, 2, 3, 5, 6, 7a, 9b and 9c buildings and Class 4 parts of a building. Factories, laboratories and health-care buildings are not covered by the VM due to the processes undertaken in these buildings and their associated specialised ventilation requirements.

In quantifying these Performance Requirements the VM nominates the maximum contaminant level permitted. The VM contains a table which, for a number of contaminants, lists the maximum amount of contaminant allowed and the period over which the contaminant is to be measured.

It is anticipated the handbook will be available in May 2016 and will be available on the ABCB website.

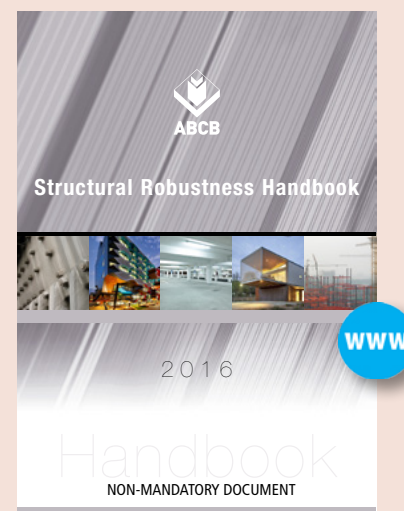


NEW STRUCTURAL ROBUSTNESS HANDBOOK COMING SOON

The ABCB produces a range of handbooks which are freely available from the ABCB website. These handbooks typically address topics that are considered to be unsuitable for regulation through the NCC or provide additional guidance on those matters that are regulated by the NCC. These handbooks are non-regulatory with the aim of providing practitioners with information and guidance on specific topics.

The ABCB continues to develop new handbooks and revise existing handbooks where construction practices, technology or regulations change. The latest handbook on *Structural Robustness* has been created to provide guidance on the structural robustness verification methods, BV2 and V2.1. 2.

This non-mandatory Handbook also provides guidance for practitioners on possible applications of the verification method.



KEY DATES FOR NCC 2019

Regular ABRB readers would be aware that the NCC has now entered into a three-year amendment cycle. The last edition of ABRB explained that this move serves to reduce the “re” factor: retraining, redesigning, rewriting, reviewing, and redoing in response to each new edition of the NCC.

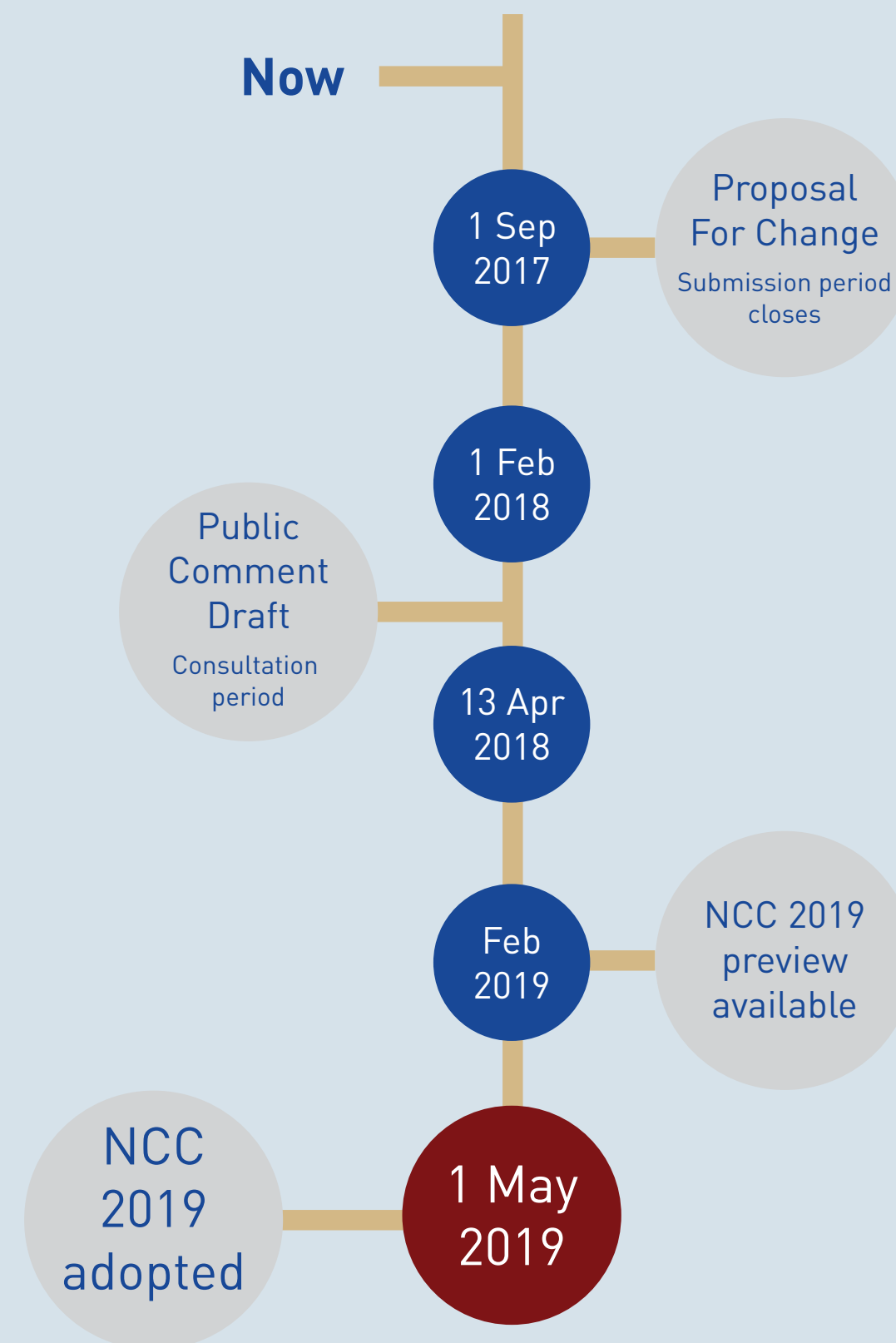
The new amendment cycle brings with it new key dates for engaging with the amendment process for NCC 2019:

- **Proposals for Change** (PFCs) may be submitted at any time however must be received by 1 September 2017 to be considered for inclusion in NCC 2019. In order to make the most effective use of resources, reduce unnecessary churn and focus on priorities, PFCs that repeat previous submissions, involve matters outside the purview of the NCC or the purpose of which would make no material change to a provision are discouraged.

- **Public Comment Period** will commence in February 2018 with the release of the NCC 2019 Public Comment Draft. Feedback is always invited on proposed amendments to the NCC, and the closing date for comments on NCC 2019 will be 13 April 2018.
- **Preview of NCC 2019** will be available for download on 1 February 2019.
- **Adoption of NCC 2019** will take place on 1 May 2019.

For further information on the NCC amendment cycle, please contact the ABCB office.

THREE YEAR NCC AMENDMENT CYCLE



RECORD NUMBERS AT THE 2016 NATIONAL CONSTRUCTION CODE INFORMATION SEMINARS

The 2016 NCC Information Seminars have again proven to be enormously valuable Australia-wide with major capital cities selling out...

The ABCB delivered Information Seminars in all capital cities during February and March to keep practitioners informed of the changes to the NCC. The presentations addressed the 2016 amendments to the Building Code of Australia, Volumes One and Two, while changes to the Australian Standards referenced in the NCC were covered by Standards Australia. Practitioners were also informed of the issues relevant to each State and Territory by their State Building Control Administration representative. Changes to NCC 2016 that were addressed at the Seminars included:

- amendments to the NCC mandatory general provisions;
- new Verification Methods for ventilation & structural robustness;
- new timber construction requirements for buildings up to 25m in height;
- new provisions for farm buildings;
- amendments to the stair and ventilation provisions;
- new requirements for dwellings above non-appurtenant garages;
- and more...



Following strong interest in the Seminars, the ABCB will be producing a webcast (or on-demand clip) of these sessions which will be freely available to view via the ABCB website (www.abcb.gov.au) in anticipation of the 1 May 2016 adoption date. The online webcast is produced to ensure that as many practitioners as possible have access to these important changes and updates. It will feature all the segments discussed at the Seminars. Practitioners that are regionally located or missed a live Seminar can still view the recording on-demand and free of charge from their home or office at any time. An online webcast will also be produced for the plumbing sector addressing the changes in relation to the Plumbing Code of Australia (PCA).

In addition, the ABCB is also working with industry and State and Territory Administrations so that they can deliver the NCC updates in their regional industry communication programs.

Feedback

We are always looking for feedback on improving our awareness and education activities. Don't forget, if you attended the Seminars and have some valuable feedback for us or still have your feedback form, please email it to nccawareness@abcb.gov.au



THE INDUSTRY TECHNICAL INFRASTRUCTURE FORUM (ITIF)

Written by Tracey Gramlick,
Executive Director and CEO, AWA



The Industry Technical Infrastructure Forum (ITIF) was formed in 2015 to coordinate and prioritise peak industry body views relevant to Australian standardisation, testing, certification, measurement and building code organisations.

The ITIF seeks to develop effective, efficient and constructive relationships with Australia's technical infrastructure organisations (TIOs). A coordination and prioritisation of industry views will streamline the interface with TIO's and enhance industries ability to speak with a single voice on common issues thus complementing the current system of industry bilateral relationships with TIOs.

Knowledge of the role, governance structure, regional and international cooperation of TIOs is important to guide the ITIF on the organisation to approach and mechanisms available to address industry issues.

Late last year, introductory meetings were held between the ITIF and its counterpart organisations including initial discussion of priority issues. The TIOs all responded positively and expressed a willingness to work with the ITIF on issues raised.

On 29 February, more than forty representatives from peak industry bodies joined Australia's technical infrastructure organisations (TIOs) and the Commonwealth Department of Industry, Innovation and Science at a specially convened forum in Sydney as part of the industry education and relationship building phase of the recently formed ITIF. The TIOs included the Joint Accreditation System of Australia and New Zealand (JAS-ANZ), the National Association of Testing Authorities (NATA), the National Measurement Institute (NMI) and Standards Australia presented on their scope and place within Australia's product conformance framework, their relationships with other TIOs and governments, their international links and contact points for industry.

The ITIF greatly appreciates the TIOs participation and their enlightening presentations and acknowledge there are differing levels of understanding in industry regarding detailed aspects of product testing, certification, measurement and standardisation. Questions and discussion after the presentations focussed on topics such as outcomes from the building ministers' forum, the publishing licensing agreement between SAI Global and Standards Australia, conformity assessment inclusions within standards, the misrepresentation of testing accreditation marks by product suppliers and the need for specifiers and procurers to specify products so that they achieve compliance.

Whilst the ABCB is not a TIO, is not part of the arrangements shared between JAS-ANZ, NATA, NMI and Standards Australia, and does not perform similar functions across all other industry sectors as all of these other organisations do, the ITIF considers them as a crucial part of the broader stakeholder group and will provide them with updates regarding ITIF activities.

Confidence in Australasia's product conformance and standards infrastructure provides support and investment certainty to business and encourages innovation. Current issues such as the increased pace of technological developments and reports of increasing product non-conformance require industry to maintain close engagement with TIOs, highlight industry priorities and seek speedy prioritisation and resolution of issues.

The ITIF seeks to support and grow existing relationships with TIOs as well as draw on the international connections and experience of TIOs where relevant. In turn, TIOs are encouraged to use the ITIF to access a broad range of industry peak bodies when they need to consult widely with industry on overarching policy, priorities and process issues.

ITIF participation is open to peak industry associations who represent the wide range of industry and product manufacturing businesses that access technical infrastructure organisations in Australia. There is no cost to join the Forum and participants bear their own costs for participation in Forum activities.

The ITIF steering committee comprises representatives from the Australian Industry Group, the Australian Window Association, the Bureau of Steel Manufacturers of Australia, the Consumer Electronics Suppliers Association and Lighting Council Australia.

Interested peak bodies can contact the ITIF secretariat at dcrossley@lightingcouncil.com.au



ENERGY EFFICIENCY AND THE INCREASED USE OF PERFORMANCE

The ABCB's recent consultation on possible changes to the NCC energy efficiency requirements generated substantial public comment. This has led to some rethinking about the approach to these important reforms.

The ABCB included three draft energy efficiency Verification Methods in the public comment draft of NCC 2016. This was carried out as part of a broader body of work to quantify the requirements of the NCC.

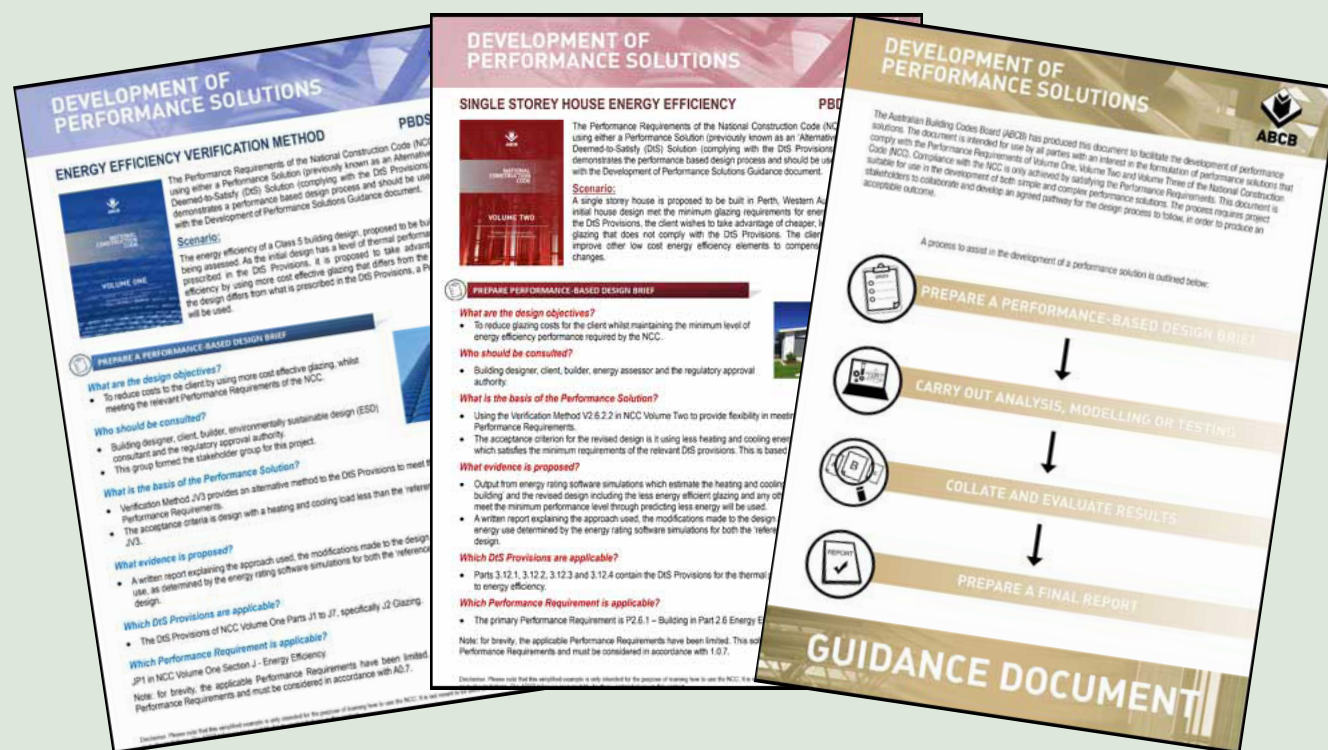
Quantified Performance Requirements and Verification Methods have been progressively introduced into the NCC since NCC 2015. This is part of a long-term goal to increase the use of the performance-based opportunities of the code. In addition to quantifying the requirements of the NCC, the ABCB is working to increase the awareness and ability of industry to develop Performance Solutions.

The Building Code of Australia was introduced in 1996, and became the NCC when it incorporated the Plumbing Code of Australia in 2011. The Centre for International Economics has estimated that at this point in time the national code has improved the productivity of the Australian construction industry by \$1.1 billion per annum. Of this, \$780 million is attributed to the performance-based nature of the national code. Further additional productivity savings of up to \$1.1 billion per annum may be achieved in part by increasing the uptake of Performance Solutions. This is because Performance Solutions can lead to more innovative and cost-effective construction practices.

NCC-A PERFORMANCE BASED CODE

Understanding how the NCC works is fundamental to developing Performance Solutions. To increase this understanding, the ABCB included an updated diagram in the General Provisions in NCC 2016. This diagram illustrates that it is the NCC's overarching Performance Requirements which establish what has to be complied with, i.e. the mandatory provisions of the NCC. It also illustrates that to achieve compliance with the Performance Requirements, a choice is provided between Performance Solutions (previously called Alternative Solutions) and Deemed-to-Satisfy Solutions.

Performance Solutions enable the use of building designs and materials that are not prescribed in black and white. They are typically developed through calculations or modelling of the specific building. In this way, more flexibility is provided in designing compliant buildings. This enables designers to adopt more innovative and cost-effective designs.



ENERGY EFFICIENCY VERIFICATION METHODS

Verification Methods fall under the Performance Solution option. They provide guidelines for developing Performance Solutions. This includes quantified targets for the performance of buildings.

The energy efficiency Verification Methods proposed for NCC 2016 were intended to allow more flexibility and improve the process of designing buildings compliant with the energy efficiency Performance Requirements. They were developed using the same process as other recent Verification Methods. Importantly, a number of committees and technical working groups provided input and feedback during this process.

Given the extent and nature of the comments provided on these proposals, the ABCB decided not to include the Verification Methods in NCC 2016. It was also noted that many of the comments indicated that there is a need for greater understanding within industry of how the NCC works, particularly in relation to the development of Performance Solutions.

This issue was further highlighted during a meeting of key stakeholders, which the ABCB convened in December. A revised plan to quantify the energy efficiency requirements was also discussed at this meeting.

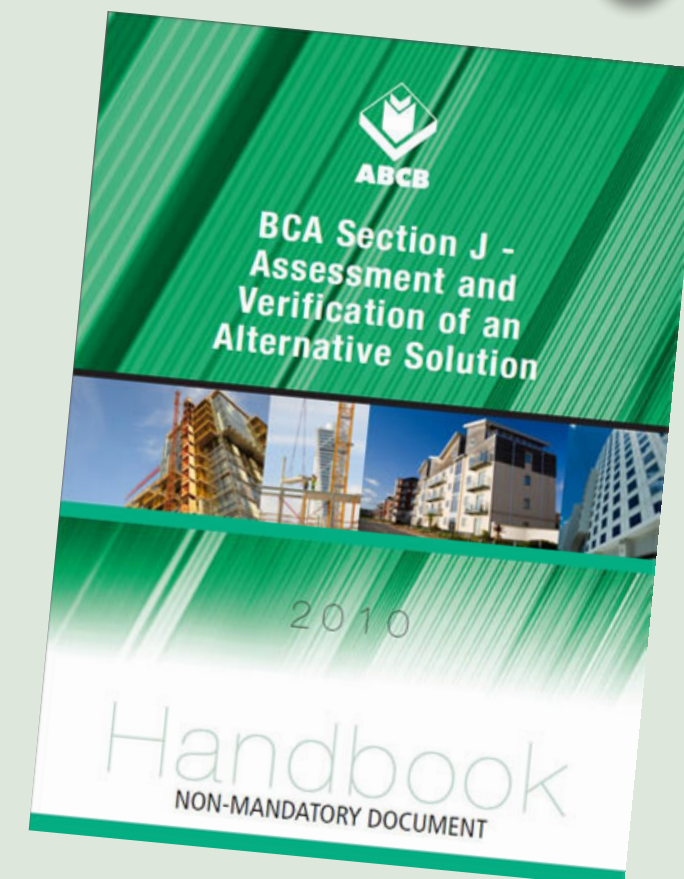
WHAT'S NEXT?

The response to the Public Comment Draft prompted the ABCB to take a more focused, consultative approach with the energy efficiency community. It also highlighted a need for additional focus on the areas of improving understanding about the NCC and Performance Solutions. These matters will be taken into account as the ABCB seeks to progress this important reform of the energy efficiency provisions.

RESOURCES AVAILABLE

Resources are currently available to assist with developing and understanding energy efficiency and Performance Solutions. The image below shows the key titles. They are available at the Resource Library on the ABCB website.

WWW



CORRECTION FROM LAST EDITION

In an article published in the ABRB Issue 16, Standards Australia incorrectly stated that AS1720.5:2015 *Timber structures - Nailplated timber roof trusses* "was developed in response to evidence that there were widespread deficiencies in the current design of roof trusses, leading to safety issues in some Australian households". The standard seeks to address a recommendation from the South Australian Coroner that a standard on the design of nailplated timber roof trusses be developed. Standards Australia apologises for any concerns this article may have caused.

STANDARDS Australia



STATE AND TERRITORY PERSPECTIVE – UPDATE FROM ACT

The Environment and Planning Directorate of the ACT Government is responsible for building control matters within the ACT. This article provides details on contemporary matters in the ACT.

www

ACT BUILDING REGULATORY REVIEW UNDERWAY

Written by Vanessa Morris
Building Policy Coordinator

The ACT Government has undertaken a policy review of the ACT Building Act, associated laws and the building regulatory system.

Reforms to date include:

- increased verification of experience for builders licence applicants;
- additional powers for the Construction Occupations Registrar to assess the skills of applicants and licensees and to require targeted training; and
- increased penalties for failing to comply with the building code, building approval requirements or a rectification order.

The Minister for Planning and Land Management is currently considering reform proposals and options related to:

- compliance for construction of a range of residential building types with the Building Act
- management of project payments and retentions between contractors and sub-contractors.

A discussion paper on regulatory reform for residential buildings was released in late 2015 with public and industry consultation closing on 19 February 2016. The paper included proposals ranging from the design stage through to post-occupancy disputes.

The ACT's Environment and Planning Directorate is considering feedback.

To join the mailing list for updates email:
ConstructionPolicy@act.gov.au.

BEWARE OF OLD 'BUILDING NOTES' AND OTHER OUTDATED DOCUMENTS

Written by Dave Parsons
Building Policy Section

ACT building practitioners and pool and spa retailers and installers need to be wary of outdated documents, particularly BEPCON or PALM Building Notes and other material about compliance with the Building Code of Australia (BCA) or related laws.

ACT Building, Electrical and Plumbing Control (BEPCON) and ACT Planning and Land Management (PALM) administered building electrical and plumbing laws until the early 2000s. Like many government entities around Australia, they published advisory information to help people understand the BCA, laws or other complex material. The ACT Government continues to publish such information as necessary.

All BEPCON and PALM notes were withdrawn by 2002. However, some are reportedly still being inappropriately relied on—particularly a note about mandatory child barriers for swimming pools and spa pools, and a note about reinforced concrete slabs and footings.

SPA COVERS OR LIDS ALONE FAIL TO COMPLY WITH CURRENT CHILD BARRIER REQUIREMENTS

PALM Building Note 4—*Swimming Pool Safety* was published in 1997 and republished in 2000. It indicates that a spa cover or lid or a locked room could provide an approved child barrier. However, those devices alone have not been BCA-compliant for many years.



The ACT Government withdrew all versions of Building Note 4 more than ten years ago, because they were no longer relevant to BCA compliance. However, old paper copies might still be unwittingly relied on even though it is no longer applicable to contemporary BCA compliance.

Building work for the erection or alteration of a mandatory pool or spa barrier, or for a swimming pool or spa pool deeper than 300 mm, is regulated under the ACT's *Building Act 2004*. A building certifier must certify the pool and barrier as complying with the BCA's mandatory child barrier requirements. The Building Act applies in the ACT and in Jervis Bay Territory (JBT). The barrier requirements do not necessarily apply to non-domestic public pools or spas in the ACT or JBT.

For several years the BCA has had a mandatory Performance Requirement that swimming pools and spa pools must have a barrier to restrict the access of young children to the pool and to the immediate pool surrounds. It has provisions which are deemed-to-satisfy those requirements—safety barriers installed in accordance with AS 1926 Parts 1 and 2. Parts 1 and 2 are:

Part 1: Safety barriers for swimming pools

Part 2: Location of safety barriers for swimming pools.

Proprietary spa pool lids and covers only restrict access into the spa pool and fail to restrict access to the area around the pool, and therefore fail to comply with the BCA's mandatory requirements.

BUILDING NOTE 7 WILL NOT ADDRESS ALL DEEMED-TO-SATISFY REQUIREMENTS FOR SLABS AND FOOTINGS

PALM Building Note 7—*Residential floor slabs and footings* was published in 1995. It indicates that certain reinforced concrete floor slab and footing details are suitable for use in the ACT.

However, compliance with PALM Building Note 7 will not necessarily produce a slab or footing that complies with all of the relevant Deemed-to-Satisfy Provisions of the contemporary BCA. The ACT Government withdrew PALM Building Note 7 more than ten years ago because it no longer fully addressed BCA compliance.

BCA 2015 and BCA 2016 both have deemed-to-satisfy provisions for complying with the mandatory requirements for reinforced concrete slabs and footings.

CURRENT GUIDES AND INFORMATION SHEETS

A range of information on ACT building and development law is available from our website.

Always check if such material is the most current and up to date before you use it.

For further information about the ACT's current building notes contact the ACT Environment and Planning Directorate, Dave Parsons, phone (02) 6207 9370.

UPDATE FROM STANDARDS AUSTRALIA

Written by Tim Wheeler, National Sector Manager Standards Australia

As the independent and not-for-profit developer of internationally-aligned Australian Standards, Standards Australia informs us on key standards updates and introduces the next generation of Standards experts.

FIRE HAZARD PROPERTIES OF WALL AND CEILING LINING

When it comes to matters of fire safety, debates on the suitability of building components are always front and centre. With the expertise and dedication of the FP-018 Technical Committee, we have developed a brand new standard, AS5637.1:2015 that contains all the testing requirements for determining the flammability of internal walls and ceilings. This standard is referenced in the National Construction Code (NCC) 2016 edition, which comes into force on 1 May this year.

Prior to the development of this standard, the NCC allowed two alternative and equal procedures for determining the flammability of products. For some products there appeared to be some discrepancies in results depending on the method used. To avoid any potential safety issues that may result from this, AS5637.1 lays out clear requirements of which test should be used in which circumstances. AS5637.1 will bring some clarity to industry and test laboratories and make meeting the requirements of the NCC simpler.

FIRE DETECTION, WARNING AND INTERCOM SYSTEMS

2015 has been a significant year for standards on fire detection systems. An updated version of AS1670.1 on design, installation and commissioning of fire detection systems was published. The new and improved version of the standard introduces a number of major changes and helps to better align Australia with international best practise. To this end, a number of ISO documents that were published since the last iteration of AS1670.1 have been incorporated into the document. This has significantly increased the flexibility of design and installation of fire detection systems and simplified the requirements to meet the NCC. Other notable inclusions are the establishment of baseline data retention for ongoing system maintenance and servicing, and provisions for an Alarm Delay Facility as a measure to reduce nuisance alarms in households. It is another major step in providing positive acceptance of smoke alarms by the community.



YOUNG BLOOD AT STANDARDS AUSTRALIA

Launched in 2012, Standards Australia's Young Leaders Program is designed to bring together Australia's next generation of standards experts. Up-and-coming engineers, technicians and managers are given the opportunity to become involved in national and international standards development, supporting Australian industry, government and consumers.

Young professionals are selected in a competitive process and trained in standards development. Paired with an experienced mentor, the Young Leaders have the opportunity to develop the skills required to be successful in the technical committee environment. The Young Leaders Program provides formal training in drafting standards, writing for a non-technical audience, and international standards development. The program also offers courses in facilitation, negotiation and leadership skills.

The program also provides the opportunity to attend technical committee meetings at Standards Australia, and possibly other ISO/IEC meetings hosted in Australia.



Standards Australia's 2016 Young Leaders - Back row: (left to right) Aidan Roberts, Shingai Mabambe, Ajay Anand, Irini Vazanellis, Grant Wood, Osama Ali
Front row: (left to right) Tyler Mason, Katherine Moloney, Bryce Wood

THE ABCB CADETSHIP PROGRAM

At the end of January, the ABCB Cadetship Program entered its 14th year and welcomed two new Cadets into the office. The ABRB talked to last year's Cadets, Luke Beatty (right) and Alex Jaspers (left), to find out how the program benefitted their careers...



Whilst working as an Assistant Building Surveyor, Alex studied a Diploma of Building Surveying. "I was very interested in learning the theory behind the technical aspects of building regulation and was seeking a unique opportunity in this area." Alex decided to apply for the ABCB Cadetship Program, which offered the ideal environment for developing new skills.

Luke applied for the ABCB Cadetship after graduating from a Bachelor of Construction Management and Quantity Surveying, while working as a contract administrator with a large scale commercial builder. "Having dealt with a number of commercial and residential projects first-hand, I developed a keen interest in design management. The ABCB Cadetship Program has provided me with the knowledge and opportunities to create a profound and positive impact going forward in the construction industry."

"We are entering an exciting time in Australia's building regulatory environment with many positive changes currently taking place. We were fortunate enough to be offered a role at the ABCB when the NCC was undergoing significant change, in particular, the transition to a three year NCC amendment cycle. Within our first few months at the ABCB the NCC was also made freely available and we were able to experience subscriber numbers increasing to some 77,000 from 8,800 over 10 months."

"During our cadetship, we were both involved in exciting projects across teams including the NCC Management and Product Certification team and the NCC Innovation and

Analysis team. It doesn't take long to appreciate the primary focus of the ABCB cadetship, which is to cultivate knowledge, experience and opportunity. The program is underpinned by working alongside ABCB staff, a collection of knowledgeable industry professionals all of which are willing to nurture and share their invaluable industry knowledge with the cadets."

"Our project exposure was very broad, which allowed us to contribute in a range of areas; undertaking research to inform updating and maintaining the NCC, developing guidance material to better inform NCC users, undertaking stakeholder consultation and providing regular advice to industry formed an invaluable part of the program." says Alex.

"We subsequently gained an in-depth knowledge of both the building regulatory framework at a national level and the NCC at a technical level. Involvement in the project 'Increased Use and Quantification of Performance' provided an insight into the mandatory requirements of the NCC and how utilising a performance based code can lead to improved building outcomes, increased innovation and increased productivity. Involvement in the project 'NCC Volume Two ACP Review' provided an insight into the acceptable construction practices contained throughout Volume Two of the NCC, and included reviewing various parts of the Code and attending stakeholder meetings."

If you wish to know more about the Cadetship and the 2017 program, please contact the ABCB.