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THE NATIONAL CONSTRUCTION CODE

THE AUSTRALIAN BUILDING CODES BOARD (ABCB) PRODUCES A VARIETY OF RESOURCES TO KEEP YOU INFORMED AND UP-TO-DATE WITH WHAT IS HAPPENING WITH THE NATIONAL CONSTRUCTION CODE (NCC).

When you register for the NCC online (www.abcb.gov.au) you will have the option to opt-in to communications which includes the Australian Building Regulation Bulletin (ABRB).

The ABRB provides technically based information directly relevant to the building and plumbing industry and the community. Hot topics such as NCC changes and amendments are examples of what you will find within this online publication.

Read on for the latest information on NCC changes for 2016.

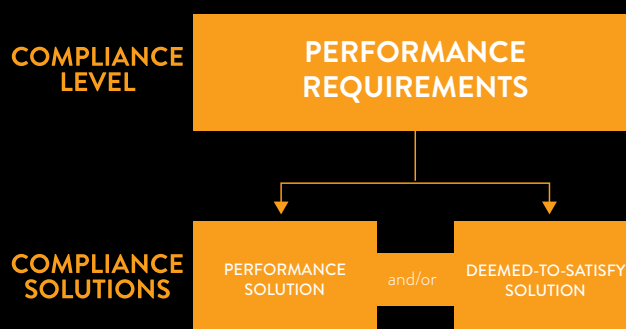
NCC 2016 – OVERVIEW OF CHANGES

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.

Figure 1: NCC Compliance Structure



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. See **Figure 1**.

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 hierarchies 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 25m 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 VOLUMES 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.

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