

HOW DOES NCC WORK?

Lam Pham

Swinburne University of Technology

What is NCC?

- NCC = all on-site construction requirements in a single document (Council of Australian Government)
- At present in 3 volumes:
 - Buildings: Volume 1 – Class 2-9 (BCA Vol. 1)
 - Buildings: Volume 2 – Class 1 & 10 (BCA Vol. 2)
 - Plumbing: Volume 3
- Performance code hierarchy:
 - Objective (what the community expects)
 - Functional Statements (how the building should behave)
 - Performance Requirements (what criteria it **must** follow)
 - Building Solutions (defining conforming products)

REGULATORY PERSPECTIVE

ONLY REGULATORY REQUIREMENTS THAT MUST BE SATISFIED

PERFORMANCE REQUIREMENTS



PATHS TO SOLUTIONS



PERFORMANCE SOLUTIONS

DEEMED-TO-SATISFY SOLUTIONS



DEMONSTRATION OF CONFORMANCE



Verification Methods
Comparison to DTS
Expert Judgements
Documentary evidence (A2.2)

REFERENCED DOCUMENTS



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NASH STANDARD
STEEL DESIGN AS4100
CONCRETE DESIGN AS3600
TIMBER DESIGN AS1720
.....

(for innovative, new products)

(for standard design)

- Path to follow when you want to do something new (i.e. there is no DTS to follow)
- Not that difficult – if you know what you are doing
- This ‘performance space’ will be always empty – because once a ‘performance solution’ is approved then it becomes a DTS
- Two kinds of performance solutions: one-off solution and type solution
- Not much guidance available:
 - Fire engineering guidelines
 - A few verification methods

NCC Performance Requirements

- Structural (4)
- Fire resistance (9)
- Access and Egress (9)
- Fire fighting (6)
- Smoke hazard (2)
- Lift installations (4)
- Emergency lighting (3)
- Weather proofing (7)
- Sanitation (6)
- Room height (1)
- Light and Ventilation (5)
- Sound transmission (6)
- Minor structures (5)
- Heating appliances (2)
- Alpine areas (4)
- Bushfire areas (1)
- Energy efficiency (2)

- Establish what are the relevant performance requirements
 - 76 performance requirements
 - For steel framing: structural and fire resistance
- Select a method for demonstrating of conformance
 - Verification Methods
 - Comparison to DTS
 - Expert Judgements
 - Documentary evidence (A2.2)

- For a one-off solution: building surveyor
- For a type solution: situation is confusing
 - CodeMark: originally developed to handle ‘Performance solutions’ but not many are using it.
 - Up to individual building surveyor to accept or not usually on the basis of an engineering report
 - Interesting situation arises when a performance solution is proposed based on a DTS requirement
 - We do not have a robust national certification system – a serious problem for the future when more products are coming from overseas

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How to get your solutions into DTS space?

- This is the path that NASH is pursuing.
- Two paths:
 - NCC direct reference (primary reference)
 - Reference in a NCC primary reference (secondary reference)
- ABCB has protocols for:
 - Preparing NCC referenced documents
 - Proposal for change
- NASH has managed to place in NCC as primary reference
 - NASH Standards Part 1 & 2
 - Bushfire standard
- NASH is currently working on
 - Fire and Acoustic Handbook (DTS solutions)
 - Testing standards (as secondary references)

- Brief outline of the Australian regulatory system and how NASH works fitting into it.

Thank you for your attention.