PRODUCT CONFORMANCE

Richard Choy - CEO
NATSPEC // Construction Information









NATSPEC// Construction Information

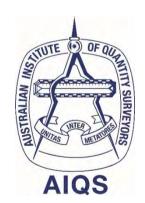
Founded in 1975, with the objective to improve the construction quality and productivity of the built environment through leadership of information.





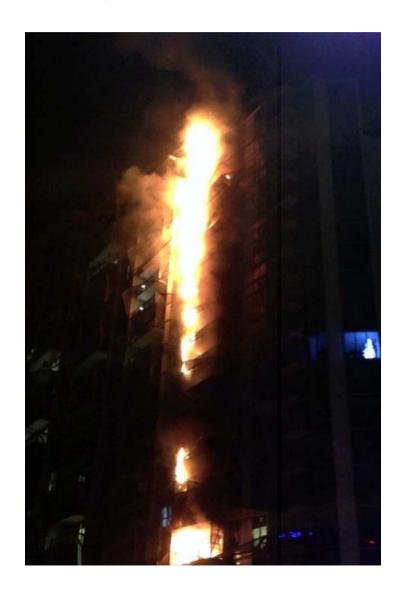








Catalyst for action





Key Issues

- 1. What product properties are required?
- 2. How should you communicate the product quality and construction quality?
- 3. How can you enforce your documentation?



Key Issues

1. What are your obligations and what product properties are required?

Lacrosse Determination

Parties found to be in breach by failing to exercise due care and skill

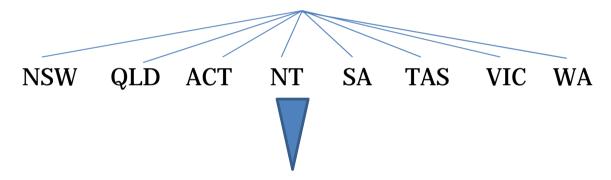


Compliance knowledge

National Construction Code



State legislation of code, with variations



Local Councils planning requirements



Knowledge above the NCC

- Fabric to be milled in Switzerland
- Architects failed to specify moth-proofed woolen fabric for Parliament House
- No one vetted the specification before tender
- Architects bore rectification costs of \$400,000





Non-conformity and non-compliance

Conformity assessment:

Demonstration that specified requirements relating to a product, process, system, person or body are fulfilled.

eg. Conforming to Australian Standard AS2589 Clause 4.2.2

Compliance:

The action of obeying an order, rule or request.

eg. Complying with the National Construction Code

Products conform. People (Individuals or Parties) comply.



Conformity to what?

Materials and products are to conform to the Australian Standards and reference documents as documented in the construction specification.





Testing

- Australian testing should be conducted by a laboratory accredited by NATA (National Association of Testing Authorities) for that test.
- At the international level, Asia Pacific Laboratory Accreditation Cooperation (APLAC) Mutual Recognition Arrangement and ILAC (international organisation for accreditation bodies) Mutual Recognition Arrangement.



Conformity Assessment Bodies

- Conformance certificated should be issued by a Conformance Assessment Body recognised by JAS-ANZ (the Joint Accreditation System of Australia and New Zealand).
- At the international level, JAS-ANZ is a signatory to the International Accreditation Forum (IAF) and the Pacific Accreditation Forum (PAC)



Key Issues

- 2. How should you communicate the product quality and construction quality?
 - ✓ Good documentation.
 - 1. Special Conditions
 - 2. Contract Conditions
 - 3. Specifications
 - 4. Drawings
 - 5. Other documents



Dollar cost of variations

Getting it right the first time

Engineers Australia 2005

- 60-90% of all variations are due to poor project documentation
- Variations due to poor documentation are adding 10-15% or more to project costs
- Loss of \$2 billion to Queensland construction budget
- Loss of \$12 billion annually Australia wide





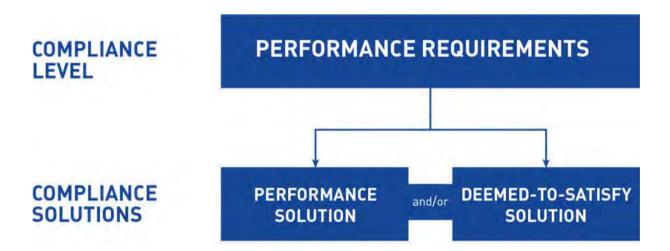
Construction Documentation



- prepare specifications in accordance with the drawings and the Client's requirements describing the <u>quality</u> of materials, finishes and quality of work necessary to be submitted for statutory approval
- Prepare further drawings, specifications and schedules to enable the construction of the project



Performance based NCC



You should document both performance solutions and deemed-to-satisfy solutions.



Reference specifying

Where an identifiable printed and published document is incorporated by reference to it. These may be Australian Standards or other industry references.

Lock and latch classification

Rating systems: To AS 4145.1 Section 3. Performance requirements: To AS 4145.2 Section 3.



NATsource





Specifications need to be up-to-date

REVISED STANDARDS

us withdrawn in: March, April and Way 2155 Which are referred to in NATSPEC and will he taken into account in the October 2015.

AS/NZS 1163:2016 Cold-formed structural steel hollow sections. (\$138.41)

This standard supersedes the 2009 edition. It specifies the requirements for the production and supply of cold-formed, electric resistance-welried. steel hollow sections used for structural purposes. It considers three strength grades, with or without impact properties, which are suitable for welding. Referenced worksections: 0183 Metals and prefinishes; 0241 Landscape - walling and edging: 0242 Landscape - fences and barriers, 0301 Pilina: 0341 Structural steet: 1192 Signipostina: 1196 Boundary fencing for road reserve.

AS/NZS 1214:2016 Hot-dip galvanized coatings on threaded fasteners (ISO metric coarse thread series) (ISO 10684:2004, MOD).

some performance requirem galvanized coatings applied steel fasteners from M8 un t and for property classes up for bolts, screws and stude a Referenced worksections. reticulation (Design); 007 reticulation and numn sta General requirements; 0181 and fasteners, 0344 Steel coatings; 0454 Overhead of screens: 1192 Signnosti

This standard supersedes

specifies material, process

AS 1228:2016 Pressure boilers. (\$526.22)

public lighting; 1341 Water

This standard superseder specifies requirements for construction, inspection an defined in AS/NZS 1200. eferenced worksections boilers: 0734 Humidifiers

AS/NZS 1367:2016 Coaxia fibre systems for the F digital television, radio an television signals in si dwelling installations. (\$43

This standard supersedes specifies requirements and the deson, installation, elecworking performance and and ongoing maintenance

frequency (RF) distribution systems using passive Structural steel, and active components that will enable the high quality distribution of off-air and in-house television and radio signals in single and multiple unit dwellings and other premises

Referenced worksections: 0902 Electrical design and install; 0962 Television distribution systems.

AS/NZS 3190:2016 Approval and test specification - Residential current devices (current-operated earth leakage-devices).

AS/NZS 3439 Low-voltage switchgear and

Part 1:2002 Type-tested and partially typetested assemblies

This standard has been superseded by AS/NZS

Referenced worksections: 0072 Water supply numn stations: 6077 Sawarage systems - numn stations (Design), 0781 Mechanical electrical; 0901 Electrical systems; 0902 Electrical design and install; 0941 Switchboards - proprietary: 0942 Switchboards - custom-built: 1362 Sewerage systems - pump stations (Construction).

Part 2:2002 Particular requirements for busbar trunking systems (busways). This standard has been superseded by AS/NZS

Referenced worksection: 0921 Low voltage

cower systems Part 3:2002 Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access for their use - Distribution boards (IEC 60439-

his standard supersedes the 2005 edition. It specifies requirements for the rating and labelling of products for water efficiency, and, where applicable, specifies minimum water efficiency standards Referenced worksections: 0811 Sanitary fixtures:

AS/NZS 6400:2016 Water efficient products -

Rating and labelling.

AS/NZS 61347 Lamp controlgear. Part 1:2016 General and safety requirements (IEC61347-1:2015, MOD). (\$438.97)

This standard supersedes the 2002 edition If adopts IEC 61347-1, Ed.3.0 (2015) which specifies general requirements for controlgear intended for use with luminaires, for operation on d.c. supplies up to 250 V and/or a.c. supplies up to 1 000 V at 50 Hz or 60 Hz.

Referenced worksection: 1197 Street and public

Part 2,3:2016 Particular requirements for a.c. and/or d.c. supplied electronic controlgear for fluorescent lamps (IEC 61347-2-3, Ed 2.0 (2011) MOD). (\$262.99)

This standard supersedes the 2004 edition and specifies particular minimum safety requirements for electronic controlgear to reduce the risk of



AS 4552:2005 Gas fired water heaters for hot water supply and/or central heating.

This standard, cited in NCC:2016, Volume 3 has been superseded by AS/NZS 5263.1.2:2016. Referenced worksections: 0712 Water heating boilers; 0802 Hydraulic design and Install, 0813 Water heaters

AS 5113:2016 Fire propagation testing and classification of external walls and buildings

a famil and May 2016 which you may need to retire to in a specification, but are not set rited to MATSPEC, Include:

AS 1670 Fire detection, warning, control and intercom systems - System design. installation and commissioning. (\$162.81)

AS/NZS 5263 Gas appliances. water supply and/or central heating.

in AS 5263.0.

his new standard supersedes AS 4552-2005. Il specifies particular requirements for gas fired water heature for hot water supply and central heating that apply in addition to or in place of the general requirements for gas appliances set out

Balayant werkspetions: 7101 Sunday Itams: 7712 Water heating boilers: 0813 Water heaters.

AS/NZS 61439 Low-voltage switchgear and controlgear assemblies. Part 1:2016 General rules (IEC 61439-1, Ed.

2.0 (2011), MOD). (\$526.22)

This new standard supersedes AS/NZS 3439.1:2002. It adopts all rules and requirements. 2. of a general nature applicable to low-voltage. switchgear and controlgear assemblies, in order

to obtain uniformity of requirements. Relevant worksection: 0921 Low voltage power.

Part 3:2016 Distribution boards intended to be operated by ordinary persons (DBO) (IEC 61439-3. Ed. 1.0 (2012). MOD). (\$220.63)

This new standard supersedes AS/NZS 3439.3:2002. It adopts IEC 61439-3, Ed. 1.0

manufactured to AS/NZS 1183, AS/NZS 3678, and AS/NZS 3679.1 to ensure they are

prequalified for welding to AS/NZS 1554, Parts 1

SA TS 103:2016 Structural steel welding -

Limits on boron in parent materials. (\$42.59)

This new standard provides dearly defined

limits on boron in structural steel that will ensure

effective weiding to supplement the 2014 edition

of AS/NZS 1554.1, AS/NZS 1554.5, and AS/NZS

Part 1.22016 Gas fired water heaters for hot AGED STANDARDS WITHDRAWN BY STANDARDS AUSTRALIA

> Standards Australia undertakes an ongoing review of aged standards. In this process, documents published for more than ten years are deemed

Aged and assessed by relevant stakeholders. Following the routew standards are reconfirmed. revised, made obsolescent or withdrawn. Standards Australia defines the following terms:

- Reconfirmation is appropriate when the document's status as a current Standard is to be renewed without any changes to its
- Revision is appropriate when the document is to retain its status as a current Standard. but its content and/or structure needs to he updated. The Revision process remains subject to Standards Australia's usual standards development procedures.
- Obsolescent indicates that the document is not recommended for new equipment or as a current practice, but is retained in profer to provide for servicing of existing equipment

The standards withdrawn in March. April and May

AS 1804-1976 Soft lead sheet and strip Referenced weeksartions (2132 Stone macons)

AS 2329-1999 Mastic adhesives for fixing

Referenced worksections: 0181 Adhesives. sealants and fasteners; 0572 Miscellaneous

AS 2754 Adhesives for timber and timber and timber products

Part 2-1991 Polymer emulsion adhesives. Referenced worksection: 0181 Adhesives sealants and fasteners.

AS 3541 Synthetic sporting services. Part 1-1988 General principles.

Referenced worksections: 0252 Landscape - soft surfaces: 0651 Resilient finishes



PROFESSIONAL DEVELOPMENT 2016

It's that time of the year again - NATSPEC is holding Professional Development seminars during July and August. The Seminar -Specifications: Overview, Production and Word Processiong - will provide an introduction to specification writing, and the detailed use of SPECbullder Live (for use on all operating systems) and Microsoft Word 1 in specification writing, using NATSPEC and/or AUS-SPEC Templates.



Importance of Certification

12,000m2 high-load building

Material did not conform

Time delay in procuring correct material but no

variation payable





Allow for appropriate Substitutions

0171 General Requirements

Substitution

Identified proprietary items: Identification of a proprietary item does not necessarily imply exclusive preference for the identified item, but indicates the necessary properties of the item.

Alternatives: If alternatives to the documented products, methods or systems are proposed, submit sufficient information to permit evaluation of the proposed alternatives. [By the Project Administrator. or approved alternative

Reasons for substitution include:

- Product unavailable A better solution identified



False certificates exist

Organisations, including the Australian Window Association, have seen false versions of their certificates. You need to verify the certificates authenticity.



National Construction Products Register

- A centralised depository freely accessible to all.
- Readily available verified information.
- Increased level of assurance.
- Reduce incidence of non-conforming products.
- Reduce incidence of fraudulent activity.
- Increased awareness and understanding of the importance of conformity by designers, specifiers, contractors and manufacturers.
- Utilise existing systems where possible.







SPECbuilder & Domestic Online

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advocacy or policy development. See a list of NATSPEC's stakeholders.



NATSPEC, the National Building Specification includes specialist packages for all building design professionals, plus home owners.

DOMESTIC ONLINE

Domestic Online can be accessed by subscribers and one-off users to significantly streamline the specification creation process for residential project specifications.



AUS-SPEC is the national specification system for the design, construction, maintenance and operation of local government assets.



Download branded worksections and case studies from NATSPEC Product Partners. offering reputation, quality to Australian standards, and support.



The NATSPEC BIM Portal is home to the National BIM Guide and other documents and tools that will assist the implementation of BIM.



A searchable database of construction products with evidence of conformity to Australian and international standards



HOME NCPR SEARCH V COMMUNITY PR

Search by

Product Name Manufacturer Standard

OR

Search by Product Type

01 General	02 Site, Urban & Open spaces	03 Structure	04
011 Documentation	020 Demolition	030 Foundations	04
012 Tendering	022 Preparation and groundwork	031 Concrete	04
013 Generic preliminaries	024 Landscape structures	032 Earth	04
014 Contract preliminaries	025 Landscape cultivation	033 Masonry	04
015 Schedule of rates (AUS-SPEC)	026 Landscape finishes	034 Steel	04
016 Quality assurance	027 Pavements	038 Timber	04
017 General requirements	028 Pathways (AUS-SPEC)		
018 Common requirements	029 Retaining walls (AUS-SPEC)		
019 Sundry Installations			
05 Interior	06 Finish	07 Mechanical	30
051 Linings	061 Trowelled and sprayed coatings	070 Mechanical general	08
052 Partitions	062 Wet areas	071 Water plant	08
053 Ceilings	063 Tiling	072 Air plant	08
054 Access floors	064 Wall Surfacing	073 Air handling components	08
055 Fixtures	065 Floor surfacing	074 Ductwork and components	08
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The following standard is identified in the evidence of conformity:

AS/NZS 1530.3: 1999

Methods for fire tests on building materials, components and structures-Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release

Standard Status - Current

National Construction Code (NCC) Citation: NCC Vol 1; NCC Vol 2

Evidence Identifier

379069-00.1

Evidence Issue Date

04 November 2015

Evidence Expiry Date

N/A

Type of Evidence; Notes and Limitations

Test report. The results only apply to the specimen mounted, as described in this report

Authentication Status of Evidence

Authenticated by CAB

043 Cladding

052 Partitions

042 Roofing

WORKSECTION

0762 Cool Rooms

0531 Suspended Ceilings - C

0434 Cladding - Flat Sheets

0528 Partitions - Composite

0428 Roofing - Specialised P

BRANDED WORKSECTION

0762p ASKIN XFLAM Perform

Cool Rooms

0531p ASKIN XFLAM Perform

Ceilings

0434p ASKIN XFLAM Perform

Cladding

0528p ASKIN XFLAM Perform

Partition System

0428p ASKIN XFLAM Perform

Roofing

NATSPEC Branded worksection downloaded for free from www

This product has evidence of co following standards:

AS/NZS 1530.3: 1999

Professionals:

- >Know what is required.
- > Document what you require.
- **≻**Enforce what you have documented.

FOR FURTHER INFORMATION GO TO

www.NATSPEC.com.au



