



ABCBC

Building product safety

National Building Product Assurance
Framework - BCR recommendation 21

2021

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Preface

The [Building Confidence Report](#) (BCR), published in April 2018, made 24 recommendations to Building Ministers to address systemic issues in the Australian construction industry. Building Ministers established the BCR Implementation Team within the Office of the Australian Building Codes Board (ABCB) to work with governments and industry to respond to the recommendations with a focus on national consistency where possible.

The BCR Implementation Team's work aims to establish national best-practice models in response to BCR recommendations. If implemented, the responses will strengthen compliance with the National Construction Code (NCC), better protecting the interests of people who own, work in, live in and use Australian buildings.

All responses to BCR recommendations have been developed in accordance with the [Building Confidence National Framework](#) with input from industry and governments. Figure 1 lists the outputs developed under the Framework, and where to find them.

The National Building Product Assurance Framework (the Framework) represents a nationally agreed response to BCR recommendation 21 on building product safety. The recommendation stated, "that Building Ministers agree a position on the establishment of a compulsory product certification system for high-risk products".

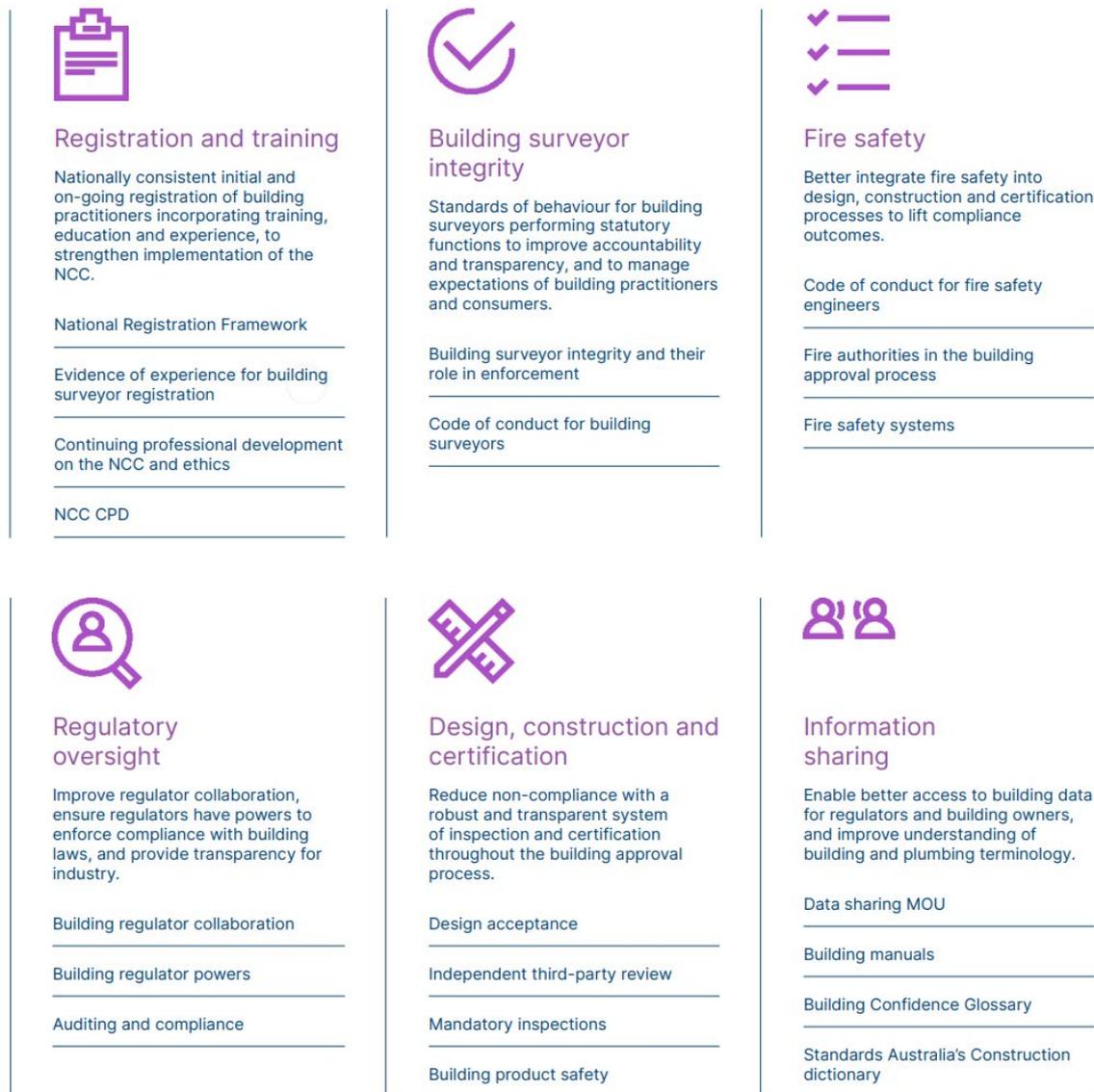
Following analysis by the BCR Implementation Team, the ABCB advised Building Ministers that a compulsory scheme for high risk *building products* may not address the compliance issues identified in the BCR. Building Ministers subsequently agreed to consider "a holistic package of measures to provide a reliable conformity assessment framework, including product conformance information, particularly where those products are used in complex buildings."

In response, the BCR Implementation Team has prepared the Framework as a first step in addressing the problems associated with *building product* safety. The Framework sets out five proposed deliverables under five elements. To achieve these deliverables there are suggested actions that will require ongoing and focused effort. The Framework is holistic and while the elements can be progressed separately, they

are intended to be delivered as a coordinated package.

The ultimate aim of the Framework is to help ensure that *building products* are used in a way that complies with the NCC.

Figure 1 – Building Confidence Implementation Framework – Outputs



Next Steps

Implementation by state and territory governments

Governments have agreed to consider implementation of the responses. Contact the building authority in your jurisdiction for information on progress.

Each of the outputs listed in Figure 1 can be accessed on the [ABCB website](https://www.abcb.gov.au/BCR).

Defined terms used in this document are shown in italics. The definitions can be found in the [Building Confidence Glossary](#).

In the Framework a *building product* is any material or component incorporated with, or could be incorporated with, a building or building work. Building products can take the form of materials, systems and components. Other terms in common use include 'construction product'.

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Acronyms

ABCB	Australian Building Codes Board
ACCC	Australian Consumer and Competition Commission
ACL	Australian Consumer Law
ACP	Aluminium Composite Panel
ACRS	Australasian Certification Authority for Reinforcing and Structural Steels
AGWA	Australian Glass and Window Association
APCC	Australasian Procurement and Construction Council
ATEN	Australian Technical Evaluation Network
BCR	Building Confidence Report
BRAC	Building Regulations Advisory Committee (Victoria)
BRANZ	Building Research Association of New Zealand
BRF	Building Regulators' Forum
CAB	Conformity Assessment Body
CROSS	Confidential Reporting on Structural Safety
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CPD	Continuing Professional Development
FRL	Fire resistance level
GTIN	Global Trade Item Number
ILAC-MRA	International Laboratory Accreditation Cooperation – Mutual Recognition Arrangement
IAF	International Accreditation Forum
JAS-ANZ	Joint Accreditation System of Australia and New Zealand
NATA	National Association of Testing Authorities
NCC	National Construction Code
NCP	Non-conforming product
PTS	Product Technical Statement
QBCC	Queensland Building and Construction Commission
QR Code	Quick Response Code
SOG	Senior Officers' Group
TAG	Technical Advisory Group
WELS	Water Efficient Labelling Standards

National Building Product Assurance Framework

Implementation of the National Building Product Assurance Framework will improve the regulatory compliance of *building products* used in the building and construction sector; increasing public confidence and safety. The Framework targets the current failings identified by the BCR in the *building product* control system (*building product* demand, supply and control) through five elements. Each element is detailed with a 'deliverable', 'objective', 'context' and 'proposed actions'. The Framework is intended to work in concert with the other BCR recommendations addressing *building product* demand, primarily [Design acceptance](#) (BCR recommendations 13-16) and [Independent third party review](#) (BCR recommendation 17).

Although the proposed actions are directed at governments, industry is expected to play an important part in assisting to achieve the agreed deliverables. While the elements are likely to be progressed separately, the Framework must be delivered in full to address the problems identified in the BCR.

Element 1: Strengthened NCC evidence of suitability requirements

The current NCC evidence of suitability provisions are not specific to the rigour required for different levels of risk. This makes it difficult for building practitioners to know when the evidence provided is appropriate for any given product type and its application. The NCC evidence of suitability provisions should be amended to be more specific as to the minimum information necessary to verify evidence of suitability based on the particular *building product* and its application. This should be supported by a more detailed and updated ABCB 'Handbook - Evidence of suitability'.

Element 2: Information obligations for manufacturers and suppliers

For a *building product* to be used in a way that is fit for purpose, building practitioners responsible for their specification, selection, installation and certification need access

to appropriate, reliable and consistent product information. Often this information is not available. Manufacturers and suppliers should be obligated to provide evidence in support of a product's intended use. Where the evidence is provided by an industry conformance scheme it should be required to operate to a minimum standard and be encouraged to provide a multi-faceted service that facilitates compliance by all users.

Element 3: Product traceability and identification

Building product traceability and identification is needed to determine that specified products are the ones delivered to site and that their origins are traceable if problems arise. A national, industry-wide traceability framework will bring greater certainty to compliance by ensuring the appropriate information is available where it is needed in the building delivery process. *Building product* identification will also help address the problem of counterfeit products and substitution. Traceability standards would underpin the framework by providing the 'digital building blocks'. It is proposed that traceability standards are developed for the construction industry by drawing on the experience of other industries, including those internationally. To assist with product identification, consistent *building product* labelling requirements should be included in all NCC referenced *building product* standards.

Element 4: Improved surveillance, research and information sharing

There is a need for improved surveillance, research and information sharing to ensure the ongoing, effective and robust operation of the *building product* assurance system. This requires a national body to be tasked with oversight and coordination of the system. Building product and testing standards referenced by the NCC must be monitored and reviewed to ensure they continue to be effective and satisfy the Performance Requirements of the NCC. The ABCB's NCP portal should be further developed into a mechanism to report and communicate *building product* failures. A *building product* conformance and compliance guide along with training (possibly in the form of NCC CPD training) should be developed. This will assist industry to better understand how to meet *building product* compliance obligations.

Element 5: Strengthened compliance and enforcement

There is a need to ensure that compliance and enforcement addresses the entire building delivery chain, starting with manufacturers and suppliers. When any documentation relied on for compliance is found to be insufficient it must be quickly withdrawn and must be well communicated. It will also be necessary to ensure that where manufacturers' obligations (detailed under Element 2) are introduced, they are enforced. It is recommended the states and territories each consider strengthening their legislative powers for *building product* audit and enforcement. It is also recommended that where enforcement action is taken, it is well communicated.

Figure 2 below, provides a summary of the proposed actions under each of the five elements of the National Building Product Assurance Framework, against where they align with the *building product* control system.

Figure 2: National Building Product Assurance Framework

Building Product Control System	Building Product Assurance Framework	
Building Product Demand	Element 1 – NCC Evidence of Suitability	
	Amend to increase rigour and set minimum, consistent requirements (1.A)	
	Improve guidance (1.B)	
Choose compliant products	Design Acceptance and Construction Inspection	
Install correctly	Model Guidance (BCR recommendations 13-17)	
Building Product Supply	Element 2 - Information Obligations	
	Require minimum product information from manufacturers and suppliers (2.A)	
Provide conforming products	Develop industry conformance schemes (2.B)	
Information to inform choices	Easy and affordable access to Australian Standards (2.C)	
Information to inform installation		
Building Product Control	Element 3 - Product Traceability & Identification	
	Standards for construction industry traceability (3.A)	
Monitor, approve & record product choice	Product labeling requirements in all NCC referenced standards (3.B)	
	Element 4 – Surveillance, Research & Information Sharing	
Monitor, approve & record product info	Oversight and coordination of product assurance system (4.A)	
	Monitor and review building product standards (4.B)	
	Central information portal (4.C)	
Audit	Conformance and compliance guide and training (4.D)	
	Element 5 - Compliance & Enforcement	
Assess, approve, inspect & record installation	Building product audit and enforcement powers for all state and territories (5.A)	
	Enforcement action is well communicated (5.B)	

Building Product Control System

In developing their recommendation, the BCR authors “heard there is a high incidence of building products in the market that are not compliant with the standards set out in the NCC, resulting in inferior and sometimes dangerous products being used in the construction of buildings”. They were also informed of “products being used in a non-compliant manner which can result in unacceptable risks to safety”.

The Kenley Report¹ examined how non-performing products are installed and concluded “building products are the result of a complex network structure of production, delivery and installation”. Kenley found that “for any control mechanism to work, it should recognise both demand and supply” and concluded that “the policy, regulatory, approvals and inspection framework should act on both the supply and demand systems” and that “a total control system should have the following properties:

1. Product demand responsibility to choose compliant products or component systems.
2. Product supply responsibility to provide conforming products or component systems.
3. Product supply responsibility to provide appropriate information to inform those choices.
4. Control processes to monitor, approve and record both the choices and the product information.
5. Control process to audit products for conformance.
6. Product demand responsibility to install products and component systems correctly.
7. Product supply responsibly to provide appropriate information for product installation.
8. Control processes to assess, approve, inspect and record installation methods”.

¹ *Reforms to achieve performing building products: guidance for managing compliance and conformance*, June 2019

Building product demand

Building products are typically chosen through the process of project design and *specification*. Incomplete product *specification* and a lack of product information during *design acceptance* can lead to gaps being filled during procurement and installation. This leads to *building products* not being selected by the designers or builder, but by the individual trades and subcontractors.

Strengthening the demand for *building product* information at the design stage and throughout construction has been addressed in the model guidance produced for [BCR Design acceptance](#) (BCR recommendation 13-16) and [Independent third party review](#) (BCR recommendation 17), which focus on ensuring that building practitioners seek out the necessary information to correctly specify, document and approve *building products* in order to achieve regulatory compliance.

The correct installation of products depends on the installer knowing the specified products are the ones delivered to site and are accompanied by, or provide access to, the appropriate installation information.

Building product supply

Building product supply incorporates individual products or systems made up of a combination of products working together. They can be supplied as a:

- discrete individual product (e.g. bricks, tiles);
- number of products working together in a system or as a building component (e.g. door assembly, modular component); or
- a system that comes together on site (e.g. roof trusses, external wall cladding system).

Products can have single and multiple applications. They can be used solely in the construction of buildings or more broadly. In addition, depending on its application, the same product can potentially be high risk in one situation and low in another.

There are an enormous number of *building products*. “There are at least 10,000 categories of products used in building construction and perhaps over 90 per cent of the products have no problem at all.”²

Supply chains are global and underpinned by free trade agreements that often operate with little or no understanding of the specific requirements in Australian building regulations.

Building product control

Under the *building approval* process the *statutory building surveyor* must assess, inspect and approve the use of *building products* where they are relied upon to demonstrate compliance with the NCC and other prescribed requirements.

In this role they, in part, rely on the information provided through Australia’s *product conformance* infrastructure. The infrastructure provides a system for standardisation and *conformity assessment*. *Conformity assessment* is against the NCC and its referenced documents (e.g. Australian Standards). The infrastructure also provides for compliance auditing, which is used to a limited extent. (The product conformance infrastructure is detailed at Appendix B.)

States and territories currently have a limited role in the regulation and enforcement of *building products*. Manufacturers and suppliers of *building products* are therefore largely outside the legislative controls for buildings. They are generally not compelled to provide the information necessary to verify that their products conform and are used in a compliant manner. Similarly, they largely sit outside of controls for consumer products. “Extant regulatory frameworks across most, if not all jurisdictions, are dominated by a focus on the demand-side. Thus, the building is regulated and constrained without matching control over the supply stakeholders.”³ Historically, the level of auditing and surveillance of *building product* compliance, undertaken by regulators, has been insufficient.

² Gad, E., et al, *Product Performance*, November 2020

³ Kenley, R., *Reforms to achieve performing building products: guidance for managing compliance and conformance*, June 2019

Element 1 - NCC Evidence of Suitability

Deliverable

Amended NCC evidence of suitability provisions set minimum and consistent information requirements and provide directions as to the appropriate evidence pathway given the *building product* and its application.

Objective

The NCC's evidence of suitability provisions are used consistently and appropriately to deliver sufficiently detailed and rigorous information to allow for a product's appropriate selection and use.

Context

The NCC's Governing Requirements include 'evidence of suitability provisions' that are used to demonstrate a proposed building design is 'fit for purpose'. The need for evidence of suitability is detailed in Part A5 of each NCC volume and the provisions cover the use of materials, products, forms of construction and designs.

Beyond the overarching requirement to select the evidence appropriate to the use (A5.1(1)), each of the six pathways for evidence of suitability are presented within the NCC without explicit reference to the circumstances of their application. This is despite each path being significantly different in the nature and level of assessment provided and rigour required. Where A5.1(1) or any of the specific pathways are not mandatory, suppliers and building practitioners might select the pathway of least resistance, rather than the pathway most appropriate for the product risk profile or relevant NCC provisions.

In addition, the evidence of suitability provisions do not separate designs and *building products* despite their validation process being very different.

A further concern with the current NCC evidence of suitability provisions is they do not articulate what would provide the appropriate rigour for evidence or threshold requirements.

Together these shortcomings make it difficult for building practitioners to know if the evidence provided is appropriate to the circumstances of product type and application. The effect is that different *statutory building surveyors* accept various evidence types for the same product. This leaves manufacturers and suppliers with a lack of certainty that when they invest in compliance information it will be accepted as evidence of suitability.

CodeMark review

As part of the ABCB's 2021-23 Forward Work Program, it is intended the Board engage in a strategic discussion about the future of CodeMark. The timing of this has been aligned to enable the ABCB Office to undertake policy analysis on possible options for the future of the CodeMark Australia scheme and strengthening of the evidence of suitability provisions having regard to the final composition of the Framework.

Proposed Actions

It is recommended the:

- 1.A NCC's evidence of suitability provisions are reviewed with the aim of setting minimum and consistent information requirements common to each evidence pathway and to increase the rigour of the evidence required. The specific changes to be considered in more detail are at Appendix A.
- 1.B ABCB 'Handbook - Evidence of suitability' is amended to assist users of the NCC to better match the appropriate evidence to the circumstances where compliance is being sought. Specifically the Handbook should:
 - include details of the circumstances where each evidence pathway is appropriate;
 - include tools (e.g. scenarios, templates and flow-charts) to explain the process of evaluating evidence for different types of building products against the NCC Performance Requirements;

- be specific to different actors along the supply chain (building practitioners, manufacturers and suppliers);
- seek to be comprehensive but remain manageable and accessible; and
- work in concert with the 'Conformance & Compliance Guide' proposed under Element 4 (Proposed action 4.C).

Element 2 – Information Obligations

Deliverable

Regulation requires that manufacturers and suppliers of *building products* provide minimum and standardised *building product* information.

Objective

To have clear, accurate, current and verified information available for all *building products* to inform their compliant selection and installation. Consistency and familiarity in the presentation of *building product* information facilitates efficient and reliable product selection.

Context

Industry reports there is a lack of information to inform the appropriate selection and use of *building products*. Many manufacturers and suppliers do not consistently provide transparent and verifiable information that confirms how *building products* can be used in a way that conforms with the requirements of the NCC, its referenced documents and relevant state and territory requirements. Where the information does exist, it comes in many different forms and with different levels of rigour. Detailed information often only exists in the test reports to which access is often restricted on the grounds they are regarded as ‘commercial in confidence’.

These problems are exacerbated by disconnection along global supply chains. This often means there is no ongoing commercial relationship between manufacturers, suppliers and building practitioners, or means of recourse should a product fail to perform as intended. Manufacturers may not even be aware of how their product is being used or have a sufficient understanding of the NCC Performance Requirements.

Building products also sit outside the laws relating to consumer products because for the most part, they are not subject to the controls under the Australian Consumer Law (see Element 5). In 2017, Queensland passed the *Building Construction (Non-conforming Building Products – Chain of Responsibility and Other Matters)*

Amendment Act 2017. The legislation introduced duties for all those in the ‘chain of responsibility’ who design, manufacture, import, supply or install *building products*. The duties include a responsibility to ensure that a *building product* conforms for its intended use and that the ‘required information’ accompanies the product along the supply chain. In October 2017, the Building Ministers agreed the powers set out in the Queensland legislation set a model for other jurisdictions to consider.⁴ Similar legislation is being considered in Victoria.

There is also a lack of transparency as to the regulatory requirements for building products as these often sit in NCC referenced Australian Standards. There are fees to access information within Australian Standards which can run into the thousands of dollars.

Product conformance infrastructure

The process of confirming that a *building product* conforms to certain set criteria is underpinned by Australia’s *product conformance* infrastructure, which is detailed at Appendix B.

There are a number of challenges with the infrastructure in establishing *product conformance* for *building products* and therefore in producing consistent and reliable information.

1. There is disparity amongst the conformance schemes as to the quality of assessment, level of auditing and checking for fraudulent documentation. While there are very good schemes, users of the system cannot say with confidence which of the existing schemes undertakes testing to the standard necessary to establish evidence of suitability given the proposed use of the product, and which have strong enough checks to counter misinterpretation and fraud. There is no consistency of information or a level playing field for demonstrated performance.

⁴ See the [Communiqué](#) from the Building Ministers’ Meeting in October 2017.

2. Laboratory tests are generally conducted in highly specialised silos and how these components come together as a system or in a building is often given less attention.
3. *Conformity assessment* ensures that the certification matches a stated scope, not that this scope matches all the relevant requirements of the NCC. Testing, inspection and certification is often driven by the manufacturer or supplier focusing on a specific test, rather than an evaluation of broader NCC requirements. (e.g. the manufacturer of a wall asks a laboratory to test the FRL, but may not include acoustics, energy efficiency or water proofing requirements).
4. *Product conformance* is a prescriptive assessment system that is not always a good match for a performance based NCC, where a benchmark standard may not exist for a *building product*.
5. Product assessment is often limited to a single test that is a point in time assessment. Products can change over time. Many conformance schemes do not have the level of market surveillance to ensure on-going conformity.
6. The complexity in the resulting test reports can make it difficult for building practitioners to know whether the test results match their evidence of suitability need.
7. The withdrawal of conformance evidence is not done consistently nor is it well communicated.

There is also an opportunity not always being captured for conformance schemes, to provide a supporting framework of services to actively promote, support and foster improved compliance, education and safety outcomes.

Proposed Actions

It is recommended that:

- 2.A Legislative requirements mandate the provision of minimum information obligations for manufacturers and suppliers of *building products*. Specifically,

it would be required that *building products* are accompanied by information that is:

- drawn from the information requirements detailed at Appendix D and include:
 - identifying details;
 - suitability for a specific use and relevant limitations on its use;
 - access to evidence supporting claims; and
 - instructions as to appropriate design, installation and maintenance;⁵
- provided in an agreed form for consistency and transparency (align with the data templates recommended at 3.A);
- detailed but concise and in plain English with the use of terminology abbreviations limited;
- detailed enough to establish conformance but not go so far as to compromise commercial-in-confidence requirements;
- all relevant information is clearly presented and is not misleading; and
- where provided for a system or building component, confirms the compliance and appropriate installation for a system as a whole, and not necessarily for each element that goes into the system/component⁶.

2.B a national body be tasked with the responsibility to facilitate the development of industry conformance schemes to:

- formally recognise schemes that meet a minimum standard that includes surveillance and enforcement functions (Type 2 and above detailed in Appendix C);
- provide test certificates and certification reports in a consistent form to enable users to more readily assess the validity and extent of the compliance being offered (details would be drawn from the information requirements detailed at Appendix D); and
- encourage the delivery of a multi-faceted service to aid compliance (mechanisms to drive continuous improvement, develop capacity and

⁵ It would be consistent with the information required under the amended NCC evidence of suitability provisions (Proposal 1.A), the standardised data template proposed for traceability standards (Proposal 3.A) and the Project Product Register ([BCR recommendation 13-16](#)).

⁶ The manufacturer / supplier should have the detailed information available on request should building practitioners need additional information to be certain of compliance in a specific scenario.

foster a high level of professionalism amongst manufacturer members and provide expert advice to refine the rules of *building product* certification).

2.C Government facilitates easy and affordable access to Australian Standards.

Element 3 – Product Traceability and Identification

Deliverable

Building product traceability and labelling standards are set by government to provide the framework for nationally consistent *building product* traceability and identification.

Objective

Building product traceability and identification allows all participants across the building supply chain to efficiently share reliable and trusted information in a consistent way. It helps to address the lack of certainty that the *building products* specified and ordered are the ones that are delivered to site. It works through international standards to increase transparency as to the global knowledge on a product's performance. Up to date information can be accessed in the event of problems arising over the life of the building.

Context

The majority of *building products* are labelled or marked in some way and the infrastructure to do so forms an intrinsic part of the manufacturing and retail process. Building practitioners, however, are often uncertain when labelling can be relied on and *building products* that look identical can perform differently. Labels and supporting information (e.g. test certificates) can be easily and fraudulently copied and do not always link through to further information as to a *building product's* appropriate use and installation. Labelling may also have the unintended consequence of building practitioners simply looking to 'tick off' a particular mark or reference rather than making an informed assessment of the suitability of a product for its intended purpose.

Traceability would enable visibility through the entire supply chain, from the point of origin, through all stages of production, processing and distribution, through to the point of sale and, in the case of the construction industry, installation. It would provide verified information that is appropriate to the different needs of each user in the supply chain and standardised to enable cross checking against project documentation.

Comprehensive *building product* traceability would serve to provide greater certainty for building practitioners. It would provide timely access to appropriate and reliable information. It would empower manufacturers and suppliers to better understand how and where their products are used. It would improve efficiency in saving each organisation from needing to curate their own version of the 'truth'. It can also serve other objectives such as sustainability, resilience, innovation and supply chain certainty.

Traceability data would also assist in the development and operation of a building's building manual (refer to [BCR recommendation 20](#)).

Currently there are no agreed standards for *building product* manufacturers supplying the Australian construction industry to follow in relation to the creation, storage, management and exchange of product information. This makes it impossible for the industry to efficiently share reliable and trusted information about *building products* in a consistent way.

For a construction industry-wide traceability to evolve there needs to be agreement on the common data standards, including:

1. globally unique product and location identification;
2. information to be included;
3. physical labelling or marking requirements (providing a bridge between the physical product and all associated information about the product); and
4. data exchange protocols to enable interoperability between computer and software systems (provides integrity of the information as it is being retrieved from the source by different users, at different times, with different software and for different purposes).

A number of international standards have recently been developed, or are in the process of being finalised, to inform the way *building product* information should be

organised to enable a traceability system.⁷ Standards Australia is also leading development of an international standard for blockchain and distributed ledger technologies that can facilitate traceability of *building products*.

Standards Australia has developed a technical specification on the permanent labelling of cladding materials.⁸ The specification provides minimum requirements for the marking of ACPs to enable their identification throughout the life of the product, but does not address traceability (it was not part of the specification's scope) in that it does not call for a globally unique product identifier.

From July 2020, the specification has been included as a referenced document in the NCC, requiring an ACP used in building work to be labelled in accordance with its requirements. The specification was intended to be used as a model to inform how other industry product standards can address product information. Many currently do not contain labelling requirements or, where they do, they are not specific about the type of information to be displayed and precisely how it is to be presented.

Some progress has been made in the construction industry towards traceability including:

- Many *building product* manufacturers are already using international product identification standards for retail sale. For example, globally there are in excess of 5.25 million *building products* carrying barcodes and more than 1,300 Australian manufacturers using GTIN for unique product identification and tracking through construction industry supply chains.
- The Australasian Certification Authority for Reinforcing and Structural Steels Ltd (ACRS) scheme includes traceability provisions for product manufacturers and fabricators/processors and a separate traceability scheme for suppliers.
- The Australian Steel Institute operates the National Structural Steelwork Compliance Scheme to accredit fabricators to AS/NZS 5131:2016 *Structural*

⁷ ISO 23386:2020 *Building information modelling and other digital processes used in construction — Methodology to describe, author and maintain properties in interconnected data dictionaries*

ISO 23387:2020 *Building information modelling (BIM) — Data templates for construction objects used in the life cycle of built assets — Concepts and principles*

ISO/IEC 22603-1 (under development) *Information technology — Digital representation of product information — Part 1: General requirements*

⁸ SA TS 5344:2019, *Permanent labelling for Aluminium Composite Panel (ACP) products*

steelwork - Fabrication and erection, which requires material and component traceability for more complex construction.

- The NSW Government has partnered with industry in the development of a [Building Assurance Solution](#), using technologies such as blockchain, to capture data about individual buildings from design and construction, and throughout their lifecycle. This will include information on the *building products* and construction methods used.
- CSIRO's Data61 (data and digital sciences) is exploring opportunities to use digital solutions to improve compliance in the building and construction sector.

Achieving traceability for the construction industry can also draw from progress in other industries and globally, which includes:

- The agricultural industry has recently developed a [National Traceability Framework](#) as a guide to “*develop approaches, systems, strategies and any policies that may be required*”.
- The dairy industry working with GS1 Australia has published the [Australian Dairy Traceability Implementation Guideline](#).
- The rail industry and GS1 Australia developed [Project i-Trace](#) to agree a common standard across the industry so parts and components can be accurately identified and tracked along the entire supply chain.
- The [National Traceability Advisory Group](#) established to support Australian industry and government to enhance supply chain traceability.
- A number of countries, most recently New Zealand, are regulating the identification of products through import declarations.

There will be challenges and costs in providing a traceability system, although these should be offset by efficiency and compliance gains. The initial costs will come from needing to lift competency, both in terms of technology and skilled resources. Costs will need to be incurred by manufacturers to develop databases that enable a standardised approach and the maintenance of the dataset. It will also prove challenging for conformance bodies and manufacturers to change their existing information systems to be more comprehensive and permanent. Some *building products* are used in other industries and requiring labelling specifically for building use could potentially impose an extra burden on these manufacturers.

Proposed Actions

It is recommended that:

- 3.A *Building product* traceability standards are developed to provide a traceability and identification framework to facilitate national construction industry-wide traceability, including:
- standards for setting globally unique product identification codes based on ISO/IEC accredited product identification standards (e.g. GTIN);
 - data templates for the *building product* information to be accessible from the identification codes (drawn from the information requirements detailed in Appendix D and consistent with recommendation 2.A);
 - physical labelling or marking requirements (as per Proposed Action 3.B); and
 - data exchange protocols based on ISO/IEC accredited standards.
- 3.B Product labelling or marking requirements are included in all *building product* standards referenced in the NCC.

While the specific requirements will vary according to the nature of the product (its physical attributes and level of complexity and risk), all products should be required to have a permanent physical marking (or a form of indelible marking) that includes or provides access to the following information:

- product identification code;
- product name or trademark of the manufacturer;
- model number, name or designation;
- date of manufacture (month and year at a minimum);
- batch identifier or other traceability information; and
- detailed conformance information.

Element 4 – Surveillance, Research and Information Sharing

Deliverable

A national mechanism for surveillance, research and information sharing that improves oversight and coordination of the *building product* assurance system.

Objective

Surveillance, research and information sharing combine to reduce the length of time required to identify problem *building products*, inappropriate use of *building products* and to facilitate the necessary changes to regulation and practice to ensure they are quickly removed from use or used appropriately. National collaboration improves understanding across industry as to how to appropriately navigate *building product* supply and demand.

Context

The complexity of the current *building product* assurance system makes it very difficult for building practitioners to navigate with confidence. The system also has few systematic checks in place for monitoring whether the regulation is delivering the intended outcome. When problems arise, it is slow to respond as the learnings from the combustible cladding problem demonstrate.

The importance of a 'building product safety authority' is promoted by the International Building Quality Centre as one of the principles of a good practice building regulatory system and such an authority has been established in the United Kingdom as part of the reform process following the Grenfell tragedy.

In its recommendations, the Australian Senate inquiry into non-conforming products highlighted the need for a national confidential reporting mechanism and establishment of a national database of non-conforming *building products*.

There has been some work on improved surveillance, research and information sharing in Australia, including:

- The non-government international Confidential Reporting on Structural Safety (CROSS) scheme is now operating in Australia. The international scheme collects, analyses and publishes reports about failures and the safety of structures so that engineers can learn from the experiences of others. When a trend is detected, action is taken to influence changes in culture and when possible, in standards or legislation.
- Australia's Water Efficient Labelling Standards (WELS) scheme has a regulator responsible for product registration, communication, standards development, and compliance and enforcement. It includes helping businesses to register products, inspections of businesses that supply regulated products and providing advice on scheme requirements.
- The Australian government operates a confidential reporting scheme for the aviation industry (REPCON), which could serve as an example for a similar scheme covering *building product* failures.
- The beginnings of a one-stop-shop building product webpage is currently hosted on the ABCB website. Information reported to the ABCB about a suspected *non-conforming building product* is forwarded to the relevant jurisdiction. The current webpage does not provide information about the reported products, the government agency the issue is reported to, or the action taken. It also only provides limited information and advice on how to achieve *building product* compliance.
- On behalf of the states and territories, the NSW Government produced "A Guide to Australian Building Product Conformity".
- The Australasian Procurement and Construction Council (APCC) published [Procurement of Construction Products: A guide to achieving compliance](#) as an overview of conformity schemes and aid for industry stakeholders.
- Information is shared within jurisdictions and between agencies and is proposed to be further advanced by jurisdictions under [Building regulator collaboration](#) (BCR recommendation 5).

Proposed Actions

It is recommended that:

- 4.A A national body is tasked to improve oversight and coordination of the *building product* assurance system. The agency should be specifically required to:
- Convene a forum of technical experts from the construction industry, manufacturers, suppliers and conformance bodies to provide advice and recommendations on the effectiveness of the *building product* assurance system, helping to identify weaknesses and opportunities for improvement.
 - Monitor *building products* for potential compliance problems. This should be informed by targeted surveillance, audits and data provided by the state and territory regulators ([Auditing and compliance](#)).
 - Identify measures that address identified concerns and improvements to the system and recommend a nationally consistent response where appropriate.
 - Provide technical advice on solutions to identified problems and definitive NCC interpretations, including advice on appropriate compliance pathways for specific *building product* types for specific uses.
 - Monitor trends and international best practice.
- 4.B Any organisation responsible for the development of *building product* testing standards referenced in the NCC, including Standards Australia, systematically reviews and assesses those standards to ensure the *building products* tested can reproduce the same results when installed on-site. The ABCB to satisfy itself the referenced standards can continue to achieve the Performance Requirements and, where found to be inadequate, direct it be amended or cease reference to it.

4.C The ABCB's NCP portal is further developed into a central information source for *building product* assurance. Specifically, add the following functionality:

- register of product testing obligations in NCC referenced standards;⁹
- reporting system to identify, report and communicate systemic *building product* failures that will help others to learn from identified problems;
- details of enforcement action taken and withdrawal of conformance evidence (Proposed Action 5.B); and
- key information resources.

4.D A national body is tasked to develop a 'Conformance and Compliance Guide' and training to assist manufacturers, suppliers and building practitioners through the requirements to supply and use compliant products. Specifically the guide would:

- provide users of the system with the necessary knowledge to understand how the system of conformity assessment works, how to supply compliant products and how best to secure appropriate information under the system;
- cover the manufacturer requirements proposed under Element 2 and the design acceptance obligations proposed under [BCR recommendations 13-16](#); and
- extend and update the information provided in any redrafted ABCB [Handbook - Evidence of suitability](#) (Proposed Action 1.B) and the APCC's [Procurement of Construction Products: A guide to achieving compliance](#) and the NSW Government's [A Guide to Australian Building Product Conformity](#).

The training targeted at different practitioners in the building supply chain could be provided through the NCC CPD program ([BCR recommendation 3](#)).

⁹ It would not provide details on the conformance or certification of each individual product as commonly requested, as establishing a register and ensuring its ongoing accuracy would be an unmanageable task. Instead, the portal could provide links to sources of conformance information, providing a pathway to compliant products.

Element 5 – Compliance and Enforcement

Deliverable

State and territory enforcement legislation applies to *building product* supply.

Objective

Extend regulatory compliance systems to *building product* supply, targeting information omissions, misrepresentation and fraud to strengthen enforcement and increase transparency through the entire building supply chain.

Context

Compliance and enforcement is critical to any regulatory system and forms a bookend to the system of product assurance. However, the sheer volume and sourcing options of building products makes this a significant task for regulators.

Building compliance and enforcement

To date manufacturers and suppliers of building products and components have sat largely outside building compliance and enforcement. The current system relies on designers, builders and statutory building surveyors to determine and source the appropriate level of product information required to demonstrate suitability and compliance. Other than in a few situations, there is no obligation on manufacturers and suppliers to provide this information.

Queensland and NSW have introduced legislation targeting unsafe *building products*.¹⁰ Both governments now have the power to ban any or all uses of a *building product*, issue large fines for non-compliance and investigate which *building products* might be unsafe. Under the NSW legislation owners and tenants will be notified of the possible

¹⁰ *Building and Construction Legislation (Non-conforming Building Products—Chain of Responsibility and Other Matters) Amendment Act 2017* (Queensland) and *Building Products (Safety) Act 2017* (NSW)

safety risk and NSW Fair Trading will closely monitor the progress of all buildings that have been referred.¹¹ The Queensland legislation also includes a mandatory reporting requirement to report *non-conforming building products* to the regulator within 48 hours of becoming aware. It is seen as a way for the regulator to gain improved intelligence about poor practices in the industry.¹²

So long as these powers are not applied in a nationally consistent way there will be challenges in taking enforcement action against a manufacturer or supplier who may be located in another state or territory.

Currently there is also no national coverage for auditing products. State regulators address *building product* auditing on an ad hoc basis and usually in response to a reported failing. A recent example being the case of combustible cladding where comprehensive auditing was undertaken separately in each state and territory on the use of combustible cladding on buildings.

Model Guidance developed in response to [BCR recommendation 7](#) aims to improve auditing reporting and communication, and model guidance relating to [BCR recommendation 6](#) seeks to ensure regulators have the necessary powers to take enforcement action. In November 2020, Building Ministers agreed a list of minimum model building regulatory powers. While agreed by Building Ministers, adoption of these powers remain the responsibility of the state and territory governments noting that most powers already exist in a majority of jurisdictions.

Australian Consumer Law (ACL)

The ACL is applied nationally and, in all states and territories, under a 'single law, multiple regulator model' administered by the ACCC and respective state and territory consumer protection agencies. The ACL provides general provisions for consumer protection such as consumer guarantees, prohibiting misleading or deceptive conduct and false or misleading representations. The ACL also includes general product safety

¹¹ For further information, please visit the NSW Fair Trading webpage on [Building product safety laws](#).

¹² Mandatory reporting could also require *statutory building surveyors* to notify government of serious issues such as fraudulent practices or serious non-compliant building work. Mandatory reporting obligations for *statutory building surveyors* was considered as part of the model guidance prepared in response to [BCR recommendations 9 and 11](#).

provisions. Under the ACL, Australian ministers can issue safety warning notices, ban products, impose mandatory safety standards and issue compulsory recall notices.

While there may be some limited circumstances where *building products* are also consumer goods, in most cases they are not covered by the general consumer or product safety provisions under the ACL. The generic consumer protections and prohibitions under the ACL may apply to the supply of *building products* in some limited circumstance such as conduct that is misleading or deceptive, or is likely to mislead or deceive.

The BCR reported “it is imperative that the respective roles of consumer affairs and building regulations be clarified and consistently applied across jurisdictions.”¹³

Product conformance infrastructure

Under Australia’s *product conformance* infrastructure, if a product has been certified by a conformity assessment body (CAB) that is operating a Type 2 or above scheme (Appendix C), it will be subject to a surveillance regime, but this is the exception rather than the rule.

JAS-ANZ and NATA also have the warrant to act where any CAB they accredit is not fulfilling its testing, inspection or certification obligations. They each conduct an ongoing assessment and surveillance program to ensure that CABs are fulfilling their obligations. This can include expert review of certificates and reports and may lead to directions for them to be reissued or withdrawn and for public notification to be made. Ultimately, a CAB can have its accreditation withdrawn for non-performance. The complaints process helps to target the surveillance.

There have been recent cases where there have been issues with certificates issued by some CABs that have been relied upon by industry. Advice about a change in status of a conformance certificate is not required to be given to industry or the community. Some have been withdrawn without any prior warning or notification to any impacted party. In other cases, the impacted product has been installed into buildings and is

¹³ Sergold and Weir, [Building Confidence Report](#), 2018, page 36

required to be removed.¹⁴ While a change in status of conformance certificates impacts anyone using it to demonstrate compliance, legislation in all jurisdictions does not provide certainty about the implications of the change, particularly for existing buildings. It is also difficult to access information about certificates that have been withdrawn. CABs will generally provide limited information and only to governments and *statutory building surveyors*.

Proposed Actions

It is recommended that:

5.A Legislative requirements are introduced to strengthen *building product* audit and enforcement powers for all state and territory regulators, specifically powers to:

- pursue offenders across the entire building supply chain and not just those at the end (building practitioners);
- visit construction sites and suppliers of products to randomly sample *building products*;
- issue safety warning notices, injunctions, enforceable undertakings, recall or impose a mandatory safety standard;
- declare something a *non-conforming building product* where it is found not to be fit for the purpose that is claimed;
- take compliance action in cases where *building products* are supplied without the appropriate information or were not certified under the appropriate conformance pathway;
- issue penalties and fines and refer to criminal proceedings; and
- require mandatory reporting by all those in the building supply chain where they become aware that *non-conforming* or *non-complying building products* are being supplied or used.

5.B CAB's and state and territory regulators are obligated to share information on the enforcement action taken with building practitioners and the public (e.g. when building products are identified as *non-conforming building products*,

¹⁴ Victorian Building Authority, [Industry guidance on the withdrawal of CertMark International Certificates of Conformity](#), March 2019

the issue of bans or recall orders or the withdrawal of conformance certificates).

They ensure that where a problem is confirmed with a particular *building product* the withdrawal of certificate, report or other form of evidence of suitability occurs quickly and is well communicated nationally.

This may require further supporting provisions to provide protection for the CAB and/or regulator from liability.

Further Comment

Implementing the recommendations under the first four elements of the Product Assurance Framework will serve to make the requirements for compliance clearer and more robust. In turn, this will lessen the degree of non-compliance reducing the scale of the regulatory enforcement required. Similarly, the implementation of all BCR recommendations will enhance compliance and reduce pressure on government enforcement resourcing.

Next Steps

The Framework represents a holistic response to the matters identified in the BCR concerning building product safety. Each of the proposed actions within the Framework are intended to be delivered as part of a nationally coordinated package. A national focus will provide for a consistent response across jurisdictions, allowing better oversight and information sharing, and ensure the interventions operate at a scale appropriate to the global marketplace. National coordination will also alleviate unnecessary duplication of effort.

As agreed by Building Ministers in November 2021, the next stage of work on the Framework will be progressed by senior government officials representing the Commonwealth, state and territory governments in consultation with the ABCB and industry. Senior officials are expected to report back to Building Ministers on the next phase of work by mid-2022.

APPENDICES



Appendix A – NCC Evidence of suitability amendments

The following details the changes that are recommended to be considered in more detail in reviewing the NCC's Evidence of suitability provisions.

1. Form of evidence (A5.1)

Regardless of the pathway chosen, the supporting documentation, verifying compliance, should provide consistent information presented in a standardised format that:

- suitably describes the subject of the evidence;
- confirms compliance and the pathway used to achieve compliance;
- sets out any conditions or limitations to the evidence;
- contains reference to construction or installation standards where necessary;
- details the supporting material that was relied upon; and
- details who is providing the evidence and their credentials for doing so.

To ensure the above information is provided, NCC A5.1 would need to be amended to require that documentary evidence includes the following:

- a. **Identifying details:** description (e.g. name/brand and model/variant number).
- b. **Declaration of compliance:** a clear statement of which NCC Performance Requirement/s, referenced standard, other benchmark (e.g. Deemed-to-Satisfy or Verification Method) or other prescribed requirements the evidence satisfies in whole or contributes to in part.
- c. **Basis of the declaration:** basis on which the declaration is made and the evidence of suitability pathway used (e.g. verifiable test results summary, quality assurance measures etc.) including the extent to which other documents are relied upon (e.g. standards, *specification*, software or other publications or documents).
- d. **Description of application:** a statement of the application and accepted use of the *building product*.

- e. **Conditions and limitations:** relevant limitations and conditions of use insofar as they relate to compliance.
- f. **Instructions:** for the installation of the material, product, form of construction or design necessary for compliance.
- g. **Contact details:** including details covering the currency, expiry, version and contacts details for advice and support.

The information to be provided will align with the information required of manufacturers and suppliers under Element 2, the product data templates to be developed for a traceability system under Element 3 and the information required in the *Project Product Register* detailed in [Design acceptance](#) (BCR recommendation 13-16).

2. Increase rigour in each evidence pathway (A5.2)

Amend the NCC Evidence of suitability pathways to increase the rigour wherever practicable. The specific changes to be considered are as follows:

a. CodeMark or CodeMark Australia Certificate of Conformity (A5.2(1)(a))

The ABCB Office will undertake a separate review of the CodeMark Australia scheme. Changes that seek to increase the rigour of this evidence pathway will be considered as part of that review.

b. Certificate of Accreditation (A5.2(1)(b))

There is no identified problem with this pathway and therefore no identified need for change. The only product accreditation system operating under this pathway is operated by the Building Regulations Advisory Committee (BRAC) in Victoria. (The Northern Territory operates the “Deemed to Comply Manual” for products assessed for structural adequacy for cyclonic wind loads but this is a part of the acceptable construction manual under Volume 2 of the Code.)

c. Certificate issued by a certification body (A5.2(1)(c))

Amend to require a certificate from a third party Certification Body that is accredited by JAS-ANZ to fulfil the requirements of <i>AS/NZS ISO/IEC 17065:2013 Conformity</i>
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assessment - Requirements for bodies certifying products, processes and services. The product certification scheme under which the certificate is to be issued shall be a Type 2 to Type 5 as defined in AS/NZS ISO/IEC 17067:2015 Conformity assessment - Fundamentals of product certification and guidelines for product certification schemes.

Currently the NCC defines a certification body as being “*accredited by the Joint Accreditation System of Australia and New Zealand (JAS-ANZ).*” It does not define the level and nature of that accreditation.

Requiring certification bodies to be accredited to *AS/NZS ISO/IEC 17065:2013* will mean that the rules of the scheme providing the certification will be publicly available on request. They will also have resources allocated to address technical queries and to investigate identified problems. If they operate a scheme that is Type 2 or above (as per *AS/NZS ISO/IEC 17067*), they will also have a regular schedule of independent audits (see Appendix C for further details).

A reference list of certification bodies that meet these criteria could be made available via the ABCB or JAS-ANZ website and the information portal (Proposal 4.B).

d. Report issued by an Accredited testing Laboratory (A5.2(1)(d))

Amend to read “A report issued or reconfirmed by an Accredited Testing Laboratory within the past 10 years.”

Amend the definition of “Accredited Testing Laboratory” to include Accreditation to *AS ISO/IEC 17025:2018 General requirements for the competence of testing and calibration laboratories.*

Test reports from an Accredited Testing Laboratory only reflect a single test result at a point in time. They do not account for product changes that might occur over time. Requiring that only recent test reports (within the past 10 years) can address

this in part without being over onerous. Other options that could be considered as alternative include:

- Require that the test has been completed or reconfirmed within the last 5 years.
- Test reports expire following any revision of the Standard on which it is based.
- Require a new test each time the product configuration or features change, the materials have been substituted or original material properties have changed.
- Require annual quality assurance checks to determine that material properties and tolerances have not varied materially from the tested product.
- Require a declaration from the manufacturer, dated since the latest version of the NCC, that the product remains the same as the samples tested.

The current provisions define an accredited testing laboratory as being one that is accredited by the National Association of Testing Authorities (NATA) or if overseas, accredited through a mutual recognition arrangement. It does not specify the standard to which they are to be accredited.

AS ISO/IEC 17025:2018 General requirements for the competence of testing and calibration laboratories has been developed with the objective of promoting confidence in the operation of laboratories and contains requirements for laboratories to enable them to demonstrate they operate competently and are able to generate valid results.

The standard requires the laboratory to plan and implement actions to address risks and opportunities. Addressing both criteria establishes a basis for increasing the effectiveness of the management system, achieving improved results and preventing negative effects. The laboratory is responsible for deciding which risks and opportunities need to be addressed. The acceptance of results among countries is facilitated if laboratories conform to this international standard.

- e. **A certificate or report from a professional engineer or other appropriately qualified person**

Amend to read “A *Certificate of design compliance* from an independent engineer with experience and expertise with respect to the NCC Performance Requirements to which the evidence relates”.

Requiring a *Certificate of design compliance* will align this pathway with the certificates proposed under [Design acceptance](#).¹⁵

Because there can be a wide variation in the skill and knowledge level of any appropriately qualified professional engineer, the certificate should be accompanied by the details of their expertise specific to the work covered by the certificate.

The certificate could confirm that the assessment was independent and that there is no conflict of interest. It is also to confirm why *product certification* or testing was not available or appropriate.

f. Another form of documentary evidence

Amend to read “*Declaration of design compliance* from a registered building practitioner competent with respect to the NCC Performance Requirements to which the evidence relates”.

This option is included on the basis that the other options are not an exhaustive list and there may be other forms of evidence that are appropriate for some circumstances. It is still appropriate that the evidence is provided by an appropriately registered building practitioner with expertise and experience specific to the area where they are providing evidence.

Further analysis may deem it appropriate that this pathway is broaden to allow practitioners who are not registered building practitioners but who can demonstrate other competencies to provide the evidence.

The *Declaration of Design Compliance* holds the practitioner who provided it liable for their work, while the *statutory building surveyor* is informed by the information in the *Declaration* but cannot rely on it.

An example of an appropriate use of this pathway would be the case where users employ specialist design software that meets the ABCB Protocol for structural

¹⁵ Under BCR recommendations 13-16 it is proposed that a ‘Certificate of Design Compliance’ is provided by an appropriately registered and, where necessary, independent person who has examined and assessed a component of design work for compliance, stating that the component complies with stated Performance Requirements of the NCC and other prescribed requirements.

software,¹⁶ such as truss manufacturers. It may also be used by specialist consultants who are not engineers including access consultants, architects, building designers, energy assessors and acoustic consultants etc.

3. Hierarchy of evidence pathways (A5.2)

Introduce a hierarchy into the NCC evidence of suitability to instruct which pathway is appropriate in which circumstance; addressing the problem of each pathway being considered equal and better ensure that evidence pathways are applied appropriately and consistently.

A possible framework could be one that directs stakeholders to systematically consider a hierarchy of options to determine the appropriate pathway. For example:

- Products are expected to be CodeMark (a) or have *product certification* to a standard (c).
- Where CodeMark or *product certification* is not appropriate for the product type, a Test Report (d) is acceptable for products where there is a relevant Standard or prescribed requirements.
- Where CodeMark or *product certification* is not appropriate and there is no Standard or prescribed requirements for the product, Certificate of Compliance from engineer (e) may be accepted.
- Another form of documentary evidence, Declaration of design compliance, (f) can be provided once each of the other pathways are determined not to be appropriate.

While determining the suitability of the evidence provided would still be at the discretion of the *statutory building surveyor*, those providing the evidence would include an explanation of why a particular path was selected and why it is more appropriate than pathways higher in the hierarchy.

The wide application of the evidence of suitability provisions means that introducing a hierarchy has significant potential for unintended consequences that must be carefully assessed.

¹⁶ Australian Building Codes Board, *Structural software: ABCB Protocol 2011.2*, February 2019

4. Further changes

Further comprehensive changes should also be considered, including the following:

1. Separate the evidence requirements for design and *building products*.
2. Provide a more rigorous framework for *building products* and designs required to meet a fire or structure Performance Requirement and a separate less restrictive one for the remaining Performance Requirements.
3. Include a new pathway that is specific to industry conformance schemes that meet a demonstrated minimum standard to be recognised as a pathway in the evidence of suitability (Proposed Action 2.B). This would involve maintaining a reference list of schemes that meet the standard as opposed to building practitioners needing to assess the schemes as currently required under A5.2(1)(b).
4. Include a new pathway to specifically allow for accredited appraisal schemes such as one proposed by the Australian Technical Evaluation Network (ATEN) or BRANZ from New Zealand. While appraisal schemes can currently be used under another form of documentary evidence (A5.2(1)(f)), including appraisal schemes as a specific form of evidence could provide a more direct path and potentially encourage more practitioners to follow this option. It should also encourage others to provide appraisals. Consideration would need to be given as to what standard an appraisal scheme is held to.
5. Require the use of a technical advisory group (TAG) to provide direction on the correct evidence option for higher risk/risk critical elements, particularly where no test or other standard exists. This would require an identified body having oversight responsibility. Alternatively, this could be an additional role for the advisory group proposed under Proposed Action 4.A. The role of the TAG would need to be carefully considered to not undermine the role of the *statutory building surveyor*.
6. Mandate a specific evidence pathway for specific *building products* or product class.

Appendix B – Product conformance infrastructure

Australia's product conformance infrastructure covers measurement, standardisation and conformity assessment. It consists of work of the National Measurement Institute, Standards Australia, NATA and JAS-ANZ, Australia's accreditation bodies for testing laboratories, inspection bodies and certification bodies.¹⁷

As accreditation bodies, NATA and JAS-ANZ formally recognise that a conformity assessment body (CAB) is competent to carry out specific tasks.

There are three main forms of conformity assessment that can be used individually or more often in combination:

1. Testing – determination of one or more of a product's characteristics and usually performed in a laboratory.
2. Inspection – evaluation of a product or process against defined specifications using experience and professional judgement.
3. Certification – written assurance by an independent body that a product, service or system meets specific requirements.

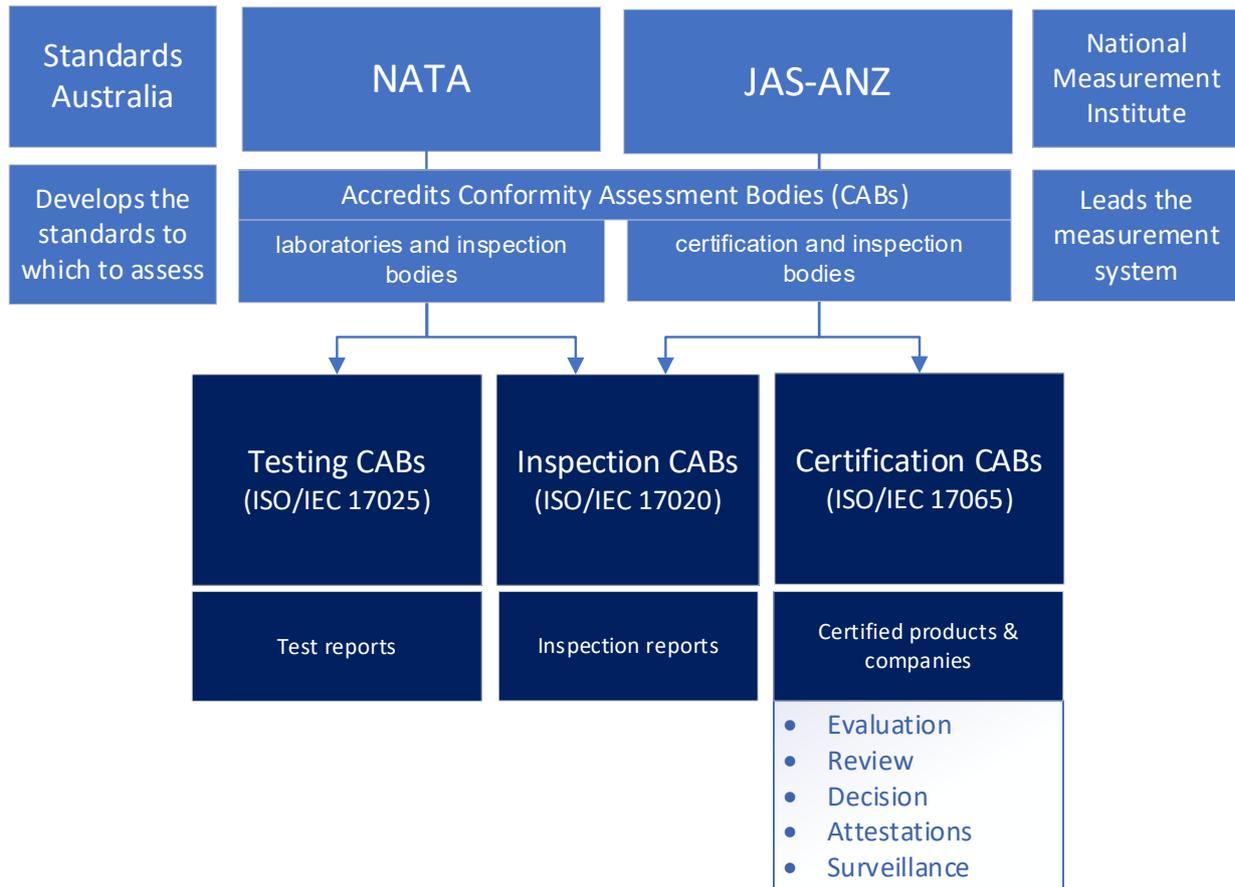
It is the role of NATA to accredit testing (laboratories and technical facilities) and inspection bodies and the role of JAS-ANZ is to accredit certification and inspection bodies.

In addition to granting accreditation, JAS-ANZ and NATA have the authority to sanction CABs that do not comply with the accreditation criteria, including suspension or withdrawal of a certificate of conformity.

The key elements of infrastructure for the building and construction industry are illustrated at Figure 4.

¹⁷ Department of Industry, Science, Energy and Resources, *Australia's Standards and Conformance Infrastructure: An Essential Foundation*, July 2016

Figure 4: Key elements of Australia's Quality Conformance Infrastructure



The product certification standard¹⁸ details the assessment functions and activities to be undertaken by a CAB. These include:

- Evaluation:
 - Selection (planning and preparation):
 - Determination of characteristics (testing, inspection, assessment);
- review (examining evidence);
- decision on certification (granting, maintaining, withdrawing);
- attestation, licensing (issuing certificates and right to use); and
- surveillance (if applicable).

¹⁸ AS/NZS ISO/IEC 17065:2013 *Conformity assessment - Requirements for bodies certifying products, processes and services*

The certification CABs then determine the type of scheme that they will operate.¹⁹ The key difference being whether the scheme undertakes surveillance and the type of surveillance they undertake. The schemes vary from no surveillance to testing or inspection of samples from the open market, testing factory samples, assessing the production process or undertaking a combination of all of these tasks. Including surveillance takes certification from a point-in-time assessment to a determination of on-going conformity.

Even where each of the scheme types are comparable in relation to their assessment functions, there may still be differences in the way different CABs execute these functions. For example, one scheme may set different competency requirements to the other or may have different surveillance frequencies etc.

A summary of the different scheme types are included at Appendix C.

Building Product Conformance Schemes

Operating within this framework is a wide range of schemes offering different levels of product conformity assurance. Some of these are private organisations and industry bodies that operate JAS-ANZ accredited certification schemes each with different conformity assessment functions under the standard. There are others that provide non-accredited product certification and rely on NATA accredited inspection bodies or laboratories. There are also a number that offer conformance assessment (but not full product certification) which use NATA accredited inspection bodies or laboratories.

Product assurance under these alternatives is to different rules and therefore not to a consistent standard. It is difficult for end users to understand the different levels of certainty provided.

¹⁹ AS/NZS ISO/IEC 17067:2015 *Conformity assessment - Fundamentals of product certification and guidelines for product certification schemes*

In an effort to make the system easier to navigate, the Australian Procurement and Construction Council created a guide that details the characteristics of twenty-one conformity assessment schemes.²⁰

Example Schemes

The ABCB administered CodeMark Australia and WaterMark product certification schemes are two examples of government run schemes.

An example of an industry conformance scheme is the Australian Glass and Window Association's scheme (AGWA). This NATA accredited inspection agency undertakes annual audits of compliance to independently demonstrate product compliance. Members are required to supply products that are tested in accordance with relevant Australian Standards. Members are also required to verify that products and information/production systems that support their manufacture adhere to the parameters of the tested system. The scheme also includes a training program and technical support to promote compliance. Non-compliance investigation and inspection services occurs via independent third party accredited auditors or accredited industry experts.

An example of a non-commercial certification system is the Australasian Certification Authority for Reinforcing and Structural Steels Ltd (ACRS). ACRS has nineteen peak body members including government, producers, specifiers, engineers, builders and other professional groups. The scheme mandates that products are identified as ACRS certified and traceable to source. In addition, ACRS has a separate Traceability Scheme, where complex procurement chains require greater scrutiny and verification such as structural steels.

²⁰ APCC, *Procurement of Construction Products: A guide to achieving compliance*, December 2015

Appendix C – Certification scheme types

The following details the features of the main scheme types that can be operated by a certification scheme. Schemes can undertake any combination of activities under 1, 2, 3, 4, 5 and 6.

Conformity assessment functions ²¹	Scheme Type Examples						
	1a	1b	2	3	4	5	6
1. Selection ○ specification of requirements	✓	✓	✓	✓	✓	✓	✓
2. Determination ○ testing ○ inspection ○ appraisal ○ assessment ○ other e.g. verification	✓	✓	✓	✓	✓	✓	✓
3. Review ○ check the evidence from the determination stage against the requirements from the selection stage	✓	✓	✓	✓	✓	✓	✓
4. Decision ○ granting, suspending, withdrawing certification	✓	✓	✓	✓	✓	✓	✓
5. Attestation ○ issue certificate of conformity & right to use	✓	✓	✓	✓	✓	✓	✓
○ certificate of conformity for a batch		✓					
○ right to use mark based on surveillance (6) or certification to batch.		✓	✓	✓	✓	✓	✓
6. Surveillance ○ test samples on open market			✓		✓	✓	
○ test samples from factory				✓	✓	✓	
○ assess production, service, process				✓	✓	✓	✓
○ management system audits						✓	✓

²¹ Derived from Table 1 – Building a *product certification* scheme, AS/NZS ISO/IEC 17067:2015 *Conformity assessment - Fundamentals of product certification and guidelines for product certification schemes*

Appendix D – Information Requirements

The following has been derived from the Product Technical Statement template provided in the ABCB [Handbook - Evidence of suitability](#).

- a. **Identifying details:** description of the *building product* (e.g. the unique identifying number, manufacturer, supplier, name/brand and model/variant number).
- b. **Declaration of performance:** a clear statement of how the *building product* is intended to perform (e.g. NCC Performance Requirement, in whole or in part, it satisfies or referenced standard).
- c. **Basis of the declaration:** basis on which the declaration is made (e.g. test results summary, quality assurance measures etc.) including the core assumptions and the extent to which other documents are relied upon (e.g. standards, *specification*, software or other publications or documents). The NCC Deemed-to-Satisfy, evidence of suitability pathway or Verification Method followed where applicable.
- d. **Description of application:** a statement of the application and/or intended use of the *building product*.
- e. **Limitations:** relevant limitations and conditions of use insofar as they relate to the specified performance, including ways it could be misused and any relevant NCC Performance Requirements or referenced standard it does not satisfy.
- f. **Instructions:** for the handling, storage, installation, occupancy and maintenance to ensure product conformance and safe use with other *building products* likely to be nominated and over the life of the building.
- g. **Warranty:** details of any warranty or guarantee provided for the *building product*.
- h. **Contact and version details:** including details covering the currency, expiry, version and contacts details for advice and support.