



**BUILDING  
PRODUCTS  
INNOVATION  
COUNCIL**

Second Submission to the  
Senate Economics Reference Committee

# Non-Conforming Building Products Inquiry

Prepared by:

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## Introduction

This second submission strongly supports the Senate Inquiry into Non-Conforming Building Product (NCBP) as the prevalence of building products not meeting relevant Australian standards and codes has increased significantly and in step with increased global sourcing and purchasing practices in recent years.

The Building Products Innovation Council (BPIC) is submitting these comments on behalf of its member organisations, Australia's leading building products industries and related services, many of whom have also submitted their own individual responses.

BPIC would urge the Inquiry to bear in mind that NCBPs are a persistent and endemic problem in the building industry. Therefore the strategy and tactics required to eliminate them must work across the building spectrum and not product group by product group or as a knee-jerk response to a recent crisis (such as asbestos contamination). While there is much concern about high-profile issues like asbestos contamination, these instances can have the effect of overshadowing an ongoing industry-wide problem.

Therefore BPIC has collated the following recent incidents of non-conforming building product on construction projects. Some cases chronicle huge rectification costs, while others document the difficulty in reporting the incident to the relevant authorities and the lack of interest by those authorities. The list may seem brief, but it underscores the problem of the lack NCBP reporting in that there is currently nowhere for reporting of incidents to be made, no recognized authority to take action on the incidents, and worst of all there are no publicly reported punitive actions taken against people and companies involved in NCBPs. It is little wonder that there is a lack of quantitative evidence on these issues.

BPIC welcomes the opportunity to comment on the negative impact that NCBPs are having on the Australian building industry such as loss of jobs, expensive and unproductive rework, and the construction of poor quality buildings.

## Recent Incidents of Non-Conforming Building Products

### Glazing

- The replacement of sub-standard glass at the 150 Collins St building project in central Melbourne is estimated to cost \$18 million. Grocon has revealed today it has to replace half the glass in the \$180 million building. The glass came from Chinese supplier, China Southern Glass.
- Ararat prison problem caused by faulty windows and doors imported from China. Hundreds of windows and doors manufactured in China arrived on site cut to wrong sizes, making them useless. Some have been sent back while others are lying around in packing cases on the now idle site.
- Headquarters of spy agency ASIO is losing expensive glass panels. The \$700 million office block has been plagued by problems with its windows. 19 of the panes, each of which cost \$3500, have "progressively failed" and fallen off. The incidents delayed construction by weeks, which helped push several building subcontractors on the site into insolvency.

- Absence of markings on windows and doors – Reported to AWA.
- Substandard safety glass in aged persons home – Reported to AWA.
- Client supplied windows failed to provide evidence of conformance to AS 2047. Builder exited contract. – reported to HIA (SA).

### Insulation

- When testing of a competitor product to confirm flammability claims, the same product tested by two NATA accredited laboratories showed different flammability results. One passing, the other failing – reported by Kingspan.
- R value calculations are supposed to be performed in accordance with AS/NZS 4859.1 but some manufacturers are testing to different standards (ISO 6946) with different requirements - reported by Kingspan.

### External Timber

- Timber promoted as H3 treated which would be suitable for external use failed testing – reported to EWCAA.
- Private residence (Sunshine Coast) where the builder direct-imported two house lots of Laminated Veneer Lumber (LVL), Strand board flooring, and Plywood cladding. LVL subfloor was set out for one house, but construction interrupted by rain. Non-conforming LVL appeared to be fine when dry, but started to delaminate when it got wet. Samples were taken for bond durability testing. Bond evaluation requires an average of 50% fibre failure across every glue line. The tested sample had absolutely no fibre failure on any glue line indicating that the adhesive was not durable, unlikely to be creep resistant, and therefore unsuitable for a structural product. EWCAA returned to site four weeks later to take samples for structural testing, but the delamination was so severe that there was no material on site sound enough to be tested. Strand board and plywood specimens were taken from stock stored on site for bond evaluation. The samples failed during the pre-treatment for bond durability testing (i.e. they fell apart before the physical bond evaluation could be done). The construction project was delayed at least 12 months. Rectification costs picked up by QBCC estimated at \$90,000 because the builder had vanished. – reported to EWCAA.

### Steel Bracing and Strapping

Steel strapping and bracing used in timber framing found to be substandard in galvanisation coating, significantly below standard, which compromised durability of product. Non conforming bracing and strapping purchased directly from building product suppliers – reported by Pryda.

### Access Covers and Drainage Grates

Non-conformance issues identified at sites include: Incorrect load class grates installed (not fit for purpose); Grate manufacturer and load class not identifiable (incorrect marking); Incorrect load class identifiable on the grate (false and misleading performance claims); Defective grates not of acceptable quality and not fit for purpose; and No grate weight marking (required by WHS regulation).

### WELS and WaterMark Products

- The WELS Regulator has noted the increased supply of non-conforming showers into the Australian market from overseas manufacturers. These instances of non conformance include showers supplied without flow controllers, with substituted flow controllers or flow controllers supplied separately. These products use more water than their WELS label indicates, therefore consumers are being provided with fraudulent information.
- A plumbing product bearing the WaterMark label was purchased and taken for independent testing by the Plastics Industry Pipe Association (PIPA) and was found to be non-conforming as it contained lead-based stabilisers. The relevant conformance assessment body (CAB) was approached and they confirmed non-compliance of product through their own testing and as a result the manufacturing facility was re-audited. The factory passed the audit and the WaterMark licence remained in place. The state plumbing regulator was contacted by PIPA and they advised that they could only take action at point-of-installation as their jurisdiction did not include point-of-sale enforcement. The plumbing regulator referred PIPA to the Australian Building Codes Board (ABCB). The state fair trading agency was also contacted by PIPA however they advised that as PIPA was not a “consumer” and the product was not a “consumer product” (this plumbing product is classified as a “building product”), they had no jurisdiction and also referred PIPA to the ABCB. Subsequent communication by PIPA with the ABCB confirmed that, as the WaterMark scheme administrator, it does not have jurisdiction for oversight of products at point of sale or post installation.
- Instances of competitive products that require WaterMark approval fail in regards to heavy metal contamination in sanitary grade products – reported by GWA.

### Transportable Homes

The federal government purchased imported portable homes for occupancy by NT government workers. Panelling contained high emissions causing illnesses and attempted to rectify the problem with extractor fans @ \$2,000 per room. The demountables were constructed in Australia by Ausco Modular Pty Ltd – reported by EWPA.

### Fabricated Steel

- Glass acoustic noise barrier alongside a Sydney roadway, comprising a 62m span triangular tubular truss fabricated from up to 250mm square tubular steel sections where: Steel was well below specified strength (independently measured by a NATA certified laboratory at 338MPa versus the 450 MPa specified); The joints indicated weld cracking; The workmanship of the tube and fabricated structure was non-compliant to Australian Standards; The cross chords were filled with water, presumed to increase component weight to that specified; suspected fraud; The protective coating was non-compliant (independently verified by a NACE certified inspector) the top urethane coat was missing and signs of rusting evident.
- Three pedestrian bridges in Busselton WA demonstrated very poor welding practice with numerous instances of lack of weld finishing (surface lumpiness, weld spatter, porosity etc.). The welds are non-compliant and may lead to premature failure. There is very poor galvanising practice, that will result in increased maintenance costs and most areas are not consistent with accepted practice as defined in the relevant Standards. Many instances of rusted areas already present after only a short time in service speak to the ongoing significant maintenance issues. The poor quality of the welding brings into question the actual capacity of the welds, which most engineers would expect to be 100% over their full length, one weld appears to be cracked bring into question the capacity of the structure to take the design load.

## Asbestos Contamination

- Asbestos was detected in cement fibre boards used by Adelaide contractor Robin Johnson Engineering to build the electrical substations on the Seaford rail line.
- Australian Portable Camps, which makes structures for the mining and construction sectors, found its cement fibre board imported from China contained white asbestos.
- Friable asbestos fibres have been found in plant equipment imported by Nyrstar for its redevelopment project in Port Pirie.
- At least 10 buildings in Western Australia including private buildings and key WA government projects, like the new Perth Stadium, Fiona Stanley Hospital and Perth Children's Hospital built with products from Chinese company Yuanda containing asbestos.
- Asbestos has been found the site of the QLD State Government's new Executive Building at the base of the building, in metal skirting which came from China.

## Electrical Wiring

Infinity Cables – NSW, QLD, VIC - Product Safety Recalls Australia has issued a warning regarding Infinity cables product. After this warning notice was issued, Infinity cables was placed into liquidation and one electrical regulator has issued a mandatory recall notice advising consumers to check with their electrician to determine whether Infinity cables were used in re-wiring work done in the past 12 months.

## The Role of BPIC

The Building Products Innovation Council (BPIC) is a national peak body representing Australia's leading building products industries and related services in:

Steel	Gypsum Board	Concrete	Quantity Surveyors
Insulation	Timber Products	Roof Tiles	
Windows & Glass	Clay Bricks	Concrete Masonry	
Cement	Housing Industry	Insulated Panels	

BPIC's members and associated companies directly employ over 200,000 Australians with more than 470,000 employed indirectly. Their collective industries are worth over \$54B in annual production to the Australian economy. The Council is a not for profit organisation governed by a Board of Directors comprised of representatives from its member organisations.

The Council's primary objective is to provide coordinated representation of the building products industry to interested parties including Government, the construction industry, and the general public. We also provide a forum for discussion, information sharing and policy formulation among major product categories in the building industry.

BPIC's mission is to:

- Promote the efficient production and use of building products within a nationally consistent regulatory environment.
- Develop policy and make submissions or representations to governments, industry and the community on agreed technical standards, codes and regulatory issues of mutual concern to Members.
- Promote the innovative use of building products.

The Council works to fulfill these aims by gathering and supplying practical and current industry information on behalf of BPIC member organisations and other organisations and companies that are not members but follow BPIC through various means. This industry-wide approach to responding to regulatory issues, helps to ensure that Governments are informed of potential problems in the building industry and are provided with appropriate industry-considered responses.

BPIC also encourages investment in skills formation, product development and industry research by helping to identify and remove regulatory impediments to innovation. We commission research into technical codes, standards and regulations as well as matters of mutual interest to the building products industry, and promote the capabilities of the building products industry through industry-run forums, exhibitions and conventions.