



NON-CONFORMING PRODUCTS – IT’S TIME TO RETHINK ‘NCBPS’...

Non-conforming building products (NCBPs) have permeated our building and construction industries for too long thanks to a mix of regulatory complexity, governmental denial, poor policing, and unclear accountability. Fresh approaches are sorely needed, writes **John Power**.

Non-conforming building products (NCBPs) have been an unwelcome burden in Australia for years. The sad truth is that NCBPs are undermining the integrity of Australia’s built environment and threatening public safety: urgent remedial action is warranted.

NCBPs refer to products or classes of products that fail to meet mandatory or recommended standards. These standards might relate to structural quality, safety-based design and fabrication, or minimum performance benchmarks.

SCALE OF THE PROBLEM

There has never been a national survey of the prevalence of NCBPs in Australia. However, in 2014 Master Builders Queensland published the results of a survey of members’ experiences with

non-conforming products across the full supply chain. This survey recorded that 40% of respondents had found ‘dodgy’ non-conforming products in their projects across all major product classes.

INDUSTRY	% OF NON-CONFORMING PRODUCT IN THAT INDUSTRY
Plumbing & Drainage	21.6
Metal Fixings	18.4
Electrical	17.6
Joinery	17.6
Engineered Timber	13.6
Windows & Glass	10.4
Waterproofing	8.0

According to the survey report, “Non-conforming products are most likely to be sourced from Australian based retailers with eight out of 10 saying that they bought them from a large retailer or a specialist construction industry supplier.”

Similarly, the report *Procurement of Construction Products: A Guide to Achieving Compliance*, launched in late 2014 (and since revised) by the Australasian Procurement & Construction Council, states that, “Evidence suggests that the market penetration of non-conforming products in several key construction product sectors in Australia may be up to 50%.”

The topic of NCBPs has been on the government radar for some years, and is currently being addressed nationally through the Building Ministers Forum [BMF]. This Forum, initiated two years

ago to investigate numerous building-related matters including NCBPs, is due to release its findings later this year. In the meantime, the Forum has already stimulated some action at a State level. For example the WA Chamber of Commerce has commissioned Swinburne University, due for release in July 2018, to undertake a study of the extent and nature of NCBPs in metropolitan Perth. Also, the Queensland Department of Housing & Public Works has just announced a [claimed] tightening of that State's legislation, aimed at widening accountability to include all members of the supply chain.

Aside from government agencies, a plethora of industry-specific peak bodies representing all major product classes have mounted [often heartfelt] campaigns in recent years to encourage greater product conformance within their own sectors. From insulation to windows and glass, steelwork and metal fixings to paint, plumbing products and engineered wood to timber flooring, calls for reform have been widespread – often supported by alarming case studies – and accompanied to varying extents by ever-tightening industry-specific certifications and regulatory guidelines aimed at thwarting the use of NCBPs.

MOUNTING CASE EVIDENCE

Over the last decade, in particular, there has been mounting evidence of the use of both site-specific and mass market NCBPs in Australia. In mid-2014 Insulation Australasia (IA) commissioned an independent investigation into the integrity of insulated flexible duct products. This investigation, conducted by Acronem Consulting Australia, involved the retail purchase of nine duct products of the same nominal specifications.

In Acronem's subsequent report, *A Survey of Thermal Performance of Flexible Duct*, all nine products failed to achieve their own performance benchmarks when tested independently by CSIRO Infrastructure Technologies.

More importantly, perhaps, IA has also encountered non-conforming products that have stark implications for human safety. For example, in

2015 the association drew attention to an imported rigid insulation product marketed in Tasmania and mainland Australia under different names.

The product sold in Tasmania allegedly carried a non-compliant fire test report, which bore no clear reference to the product in question. When tested in a National Association of Testing Authorities (NATA)-approved testing laboratory AWTA, the product attained only 50% of its claimed performance ratings. The result was serious because false insulation fire rating information means a building designer has no means of assessing the true combustion characteristics of a structure, leading to potentially life-threatening outcomes in the event of a blaze. It was noted at the time that this product had been installed in over a dozen major structures in Victoria and NSW, including hospitals.

In the Electrical sector, there has been widespread attention given to the case of Infinity Cables, which remains subject to a recall from the Australian Competition & Consumer Commission (ACCC). This faulty cabling, which can cause electric shock due to the potential for insulation to become dislodged when handled, was installed in approximately 22,000 homes and businesses across Australia between 2010-13.

In breaking news, Infinity Cables has just been fined \$18,000 plus costs of \$15,000, despite estimated rectification costs of up to \$80 million – understandably, industry observers including Australian Industry Group have slammed the penalty as a slap on the wrist.

Gary Busbridge, Standardisation Manager at Schneider Electric, says he has a "high degree" of concern about non-conforming products in the electrical sector.

"For example, we've had a product [a socket that goes into ceiling spaces for the connection of light fittings] that's been copied even though we have a patent on it," Gary says. "That [counterfeit] product was first found in Victoria and it definitely didn't pass any standards – they were basically going off the back of our product and saying theirs complied when it didn't. So, it was removed from the Victorian market by

the regulator, which is good, and a short time later we found it in Albury, NSW. We contacted the regulator there, who forced it off the market, but a year later it popped up in Queensland, so we alerted that regulator. Then, lo and behold, they thought they'd try WA, where it was installed in a couple of big buildings and commercial developments."

These fake products, Gary says, were discovered in WA because of faulty lights and loud noises caused by electrical arcing in the ceiling cavity.

"So, we alerted the regulator and the faulty products had to be replaced at a cost of around \$70,000."

Are some classes of electrical product more susceptible to non-conformance than others?

"Not really, it's across the board," Gary laments. "We see it from light industrial product right through to the residential product."

Dave Gover, CEO of the Engineered Wood Products Association of Australia (EWPA), says some classes of product are definitely harder to manage than others: "They are characterised by short supply chains – sometimes as short as the user importing direct from the manufacturer through online portals – and low levels of industry organisation," Dave explains. "They tend to be price-driven markets, and have participants who lack an appreciation of what is required of the product[s]."

"Formply is a classic example. Small subcontracting businesses drive job margins down through tendering, and then have to buy the cheapest product to make a buck. The formworkers who are diligent in their purchasing choices are forced to compete with cut-price operators who don't understand the product, buy cheap, and as a result jeopardise the safety of construction workers. Due to the lack of policing and consequence of risk gaming, NCBPs continue to be used without consequence, and companies that use conforming product get squeezed on cost. It becomes a race to the bottom. In the case of life-safety applications these NCBPs are putting lives at risk."

Fire services are particularly sensitive to non-conforming products, as breakages or poor performance levels

can have catastrophic outcomes. Non-conforming fire hydrant couplings have been found in NSW. These low-quality devices have a tendency to shatter under high pressure. The consequences of failure are self-evident, threatening not only the safety of firefighters, but also their ability to tackle fires in an emergency.

REGULATIONS – CURRENT SYSTEMS

At present there is no single quality conformance scheme or program applying to all building-related products. Instead, dozens of conformance schemes and guidelines have evolved within product-based or industry-specific sectors. The most comprehensive certifications are independently accredited through Joint Accreditation System of Australia and New Zealand (JAS-ANZ) and NATA. Smaller-scale association-based schemes range from ‘best practice’ advisories to fully fledged, independently accredited certifications.

Regardless of the varying levels of rigour or independence of these certification schemes, they all reference Australian Standards benchmarks, where applicable, in

accordance with the provisions of the National Construction Code (NCC). The NCC comprises the Building Code of Australia and Plumbing Code of Australia, and is installed within State and Territory regulatory regimes.

The Australian Building Codes Board (ABCB) administers two of the best known and far-reaching certification schemes, namely CodeMark, which is a voluntary scheme designed to showcase code-conforming innovative building products; as well as Watermark, a mandatory scheme installed within State jurisdictions relating to plumbing products.

Once products have been released into the market, additional scrutiny exists [at construction sites] through building inspections and associated engineering and design sign-offs.

“There are a number of mechanisms to ensure products and materials are ‘fit for purpose’, and comply with the

NCC, says Craig Laundry, Hon. Assistant Minister for Industry, Innovation and Science, including:

- Certificate of Conformity by CodeMark or WaterMark
- Certificate of Accreditation from an engineer or another appropriately qualified person
- Certificate from a product certification body accredited by JAS-ANZ
- Report registered by a registered testing authority
- Other documentary evidence.

“This reduce[s] the prevalence of Non-Conforming Building Products by ensuring buildings are safe, healthy and durable and the Australian market has confidence in their performance.”

Clearly, we are dealing with a contradiction here: on the one hand there is credible data showing that current product conformance processes are failing; on the other hand there is ministerial optimism that existing arrangements are working well.

DEFICIENCIES & HOLES

The main problem with the Assistant Minister’s dot points is that all certification schemes are ‘prescriptive’-

products or systems must satisfy a lengthy list of performance-based criteria in order to gain certification. In the days of strong Australian manufacturing, supply chains were mostly transparent, stable and local. Products and devices could be scrutinised from foundry to hardware store with ease. More critically, a manufacturer’s reputation was on the line if found to be supplying dodgy product. However, now that local manufacturing has largely given way to importation, traditionally clear supply chains have become muddy and importers’ accountabilities blurred.

These days, supply chains are international, erratic and almost impossible to assess with long-term certainty. These vicissitudes undercut the value of ‘type test’ certification and dilute the seriousness of product non-

conformance – an importer or distribution company can always rebrand itself, if necessary, to overcome bad publicity.

As Dave Gover, CEO of Engineered Wood Products Association of Australia points out, “For life-safety products, a test certificate for product produced a few months [or years] ago is not evidence of conformance for product produced this week. Unfortunately, test certificates are often used in exactly this way, and are seen as certification. Certification needs to have the level of rigor appropriate to the worst case intended product application. It is heartening to see that associations like EWPA are practising what they preach. The EWPA runs an accredited certification scheme that complies with ISO17067. It is a Type 5 third party certification scheme for wood products – Type 5 provides the level of rigor appropriate to life safety applications”

As far as registered test authorities are concerned, it stands to reason that an authority conducting tests in a foreign country, might operate with far different motivations and levels of professionalism than an equivalent authority in Australia, regardless of international ‘best practice’ status.

More importantly, product certification is open to abuse from counterfeit labeling, false or incomplete documentation and a lack of certainty regarding the status of different certifications, particularly in relation to voluntary schemes.

Finally, sign-off processes from architects and building inspectors are all very well on large-scale building sites, but such measures do not apply to smaller suburban jobs. It is all too easy for NCBPs to make their way into customers’ homes or businesses without any independent scrutiny.

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“Industry should not be the prosecutor, the judge, and the jury...”



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QUEENSLAND'S NEW LEGISLATION

The latest State to refresh the fight against NCBPs is Queensland, announcing in late May that it would pass the nation's toughest legislation against bad practice. This legislation is due to be in place before the end of 2017.

Queensland's Minister for Housing & Public Works, Hon. Mick de Brenni, has declared that new "chain of responsibility" legislation would mean all members of the supply chain, including designers, manufacturers, importers, suppliers and installers, would be required to ensure building products were safe and fit for their intended purpose.

The official press release also stated that the new laws would hold the full supply chain to account, "rather than just the tradie at the end of the line."

In addition, "the new laws will allow Queensland Building and Construction Commission [QBCC] officers to inspect buildings, take samples for testing and direct rectifications.

"Under these laws parties responsible in the supply chain can be directed to replace a product or fix the problem."

But is this legislation as profound as it purports to be?

The following questions need clarification:

- "Chain of responsibility" accountability: do all parties in the supply chain need to be accountable singly or as a collective entity? If a retailer was identified as a seller of non-conforming products, could the retailer claim 'discrimination' if all other members of the supply chain weren't targeted with equal vigour? Would the process be open to messy legal challenges as various parties argued over their respective apportionment of blame? What powers would the Queensland authority have over a supply chain member in another country or in a neighbouring State?
- QBCC officers entering buildings and "directing rectification": how would this procedure involve all members of the supply chain? Surely the builder alone would have the practical capacity to rectify works, which undermines the legislation's intention to involve all parties in the

rectification process.

- QBCC officers having expanded powers to enter buildings and "active" worksites: what events [if any] might trigger access to an established dwelling? Could an inspector demand to enter a house for a random inspection? What about privacy laws?
 - QBCC inspections: how many inspectors would be operating in the field?
 - Penalties: in the absence of any mention of fines or criminal prosecution or a 'name and shame' register, just what teeth might this legislation really have?
- Despite repeated requests for a response from Mr de Brenni's office, none was forthcoming at the time of going to print in June. This lack of response hardly inspires confidence in the legislation or the leadership shaping it. Indeed, the whole "chain of responsibility" model seems flawed in light of [a] the impracticality of prosecuting offshore manufacturers, [b] the requirement for building professionals and designers to

verify complex conformance documentation, or [c] the difficulty of ascertaining varying levels of culpability among stakeholders.

Perhaps the Queensland legislation might have been easier to respond to if its scope had been slightly wider, addressing fundamental questions such as whether legislation should be dealt with at a federal level; should penalties include clear definitions of breaches with tough penalties; finding better ways of incorporating conforming products into the supply chain without the need for manufacturers and tradies to act as quality assurance gatekeepers.

TOUGH ACTION REQUIRED

Reputable manufacturers are sick and tired of confused, inconsistent and selective treatments to NCBPs in different States and Territories. It is far from clear where reports of suspicions or discoveries of non-conforming

product should be directed.

Assistant Minister Laundry, when asked if the ACCC should have a stronger role in identifying NCBPs and prosecuting offenders, was clear that the ACCC was the wrong agency for such dealings:

"The [ACCC] is the Commonwealth statutory authority responsible for enforcing laws that promote competition, consumer protection and fair trading in Australia," he says.

"It is important to note," he added, "[that] the ACCC does not regulate the supply of building products, nor does it have a role in assessing building product conformity with building standards, compliance with regulations or their suitability for use in building work."

This kind of jurisdictional inconsistency and selectivity is frustrating for manufacturers, according to Gary Busbridge,

Standardisation Manager for Schneider Electric.

"It's very convoluted to actually alert a regulator," Gary explains. "It's very difficult because there is no national body [regulator]. So if you find a problem you've virtually got to send

it out to six or seven regulators to say there's an issue, and hope somebody picks up the ball and runs with it."

Matters are compounded when the offender is an overseas company.

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- INTRODUCTION OF A DATABASE DEMONSTRATING FULL PRODUCT TRACEABILITY AND ADHERENCE TO SPECIFICATIONS.
- IT IS TOO EASY TO FIND A ‘SOFT’ CERTIFIER OR SURVEYOR WHO WILL APPROVE A PRODUCT – THE LIKES OF JAS-ANZ NEED TO BE MORE RIGOROUS AND ACCOUNTABLE

Solutions, Gary says, are hard to pinpoint, though a national register of all conforming electrical products would solve most issues. Such as register, he notes, has been under discussion in Australia for the best part of a decade, “but the States can’t agree on it.”

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CONCLUSION

In a changing local landscape characterised by declining levels of local manufacturing and the entrenched globalisation of supply chains, the Australian building and construction sectors have to make some tough choices. Prescriptive protocols designed to list the positive attributes of conforming products are inadequate, and can be easily sidestepped by clandestine supply channels, poor policing measures and backdoor operations run by unscrupulous and unmonitored offenders.

However, a more centralised national approach to the problem, handled by an independent agency and using comprehensive databases of conforming products, would help underpin a new culture of intolerance towards NCBPs. Furthermore, the adoption of hard-hitting penalty regimes designed to punish importers and distributors of NCBPs would send a message to the industry that complex or remote.

John Power is a freelance journalist based in Cherokee, Victoria, and a former editor of *Plumbing Connection* and *Building Connection*.



JEFF’S THOUGHTS WHILE GOVERNMENTS DITHER, LONDON BURNS

NCBPs have permeated our building and construction industries for too long, thanks to a mix of regulatory complexity, governmental denial, poor policing and unclear accountability. As unfortunate as it is, it has taken an event like the disastrous Grenfell Tower fire in London to refocus government and industry attention on the issue.

As far back as 1991, Connection Magazines alerted readers to the issue of NCBPs - I like to call them ‘fake’ products as that is what they really are.

Fake products have been an unwelcome burden on Australia for decades. Urgent remedial action is warranted; not more regulation with no-teeth.

As John says, fake products fail to meet mandatory or recommended standards. In simple terms, the cost of production has been ripped out of them. And just remember, product standards are minimum levels of performance, not leading edge.

In the past we may have blamed cheap imports from overseas for many of the problems, but there is now a deep-seated culture of deception and fraud throughout the supply chain – and it takes two to tango.

Specifications are not being adhered to, corners are being cut and approval paperwork and test data are also being compromised. In spite of this huge con, no-one has ended up in jail or actually received a decent fine. Such

is the feather duster approach of the various authorities in charge of regulation and the ability to prosecute.

The cladding issue of the 2014 Lacrosse apartment building fire in Melbourne served as a warning; however, the Grenfell Tower fire in London has sent a strong message to governments everywhere at the significant cost of more than 80 innocent lives. Hopefully it will have an extensive effect across the issue of non-conforming product.

The incessant drive to reduce cost throughout the supply chain has much to answer for and by its very nature, it means there is more anecdotal than hard evidence – but no-one will deny it, ‘off the record’. ■