



**BUREAU OF STEEL MANUFACTURERS OF AUSTRALIA LIMITED**  
**Registered Office: Level 6, 205 Pacific Highway, St. Leonards, NSW 2065**  
**Post Office Box 1063, Artarmon, NSW Australia 1570**  
**ABN 51 088 933 162**

**Chairman:** D Jenkins  
**First Vice-Chairman:** N Gibson  
**Second Vice-Chairman:** J Nowlan  
**Website:** [www.bosma.org.au](http://www.bosma.org.au)

**Secretary:** D Armston  
**Email:** [info@bosma.org.au](mailto:info@bosma.org.au)

---

3<sup>rd</sup> August 2015  
Committee Secretariat  
Senate Standing Committees on Economics  
PO Box 6100  
Parliament House  
Canberra ACT 2600  
Phone: +61 2 6277 3540  
[economics.sen@aph.gov.au](mailto:economics.sen@aph.gov.au)

**Senate Enquiry into non-conforming building products**

Please find below Attachment 1 to the submission to the above enquiry from the Bureau of Steel Manufacturers of Australia (BOSMA).

**BOSMA SUBMISSION TO SENATE ENQUIRY INTO NON-CONFORMING BUILDING PRODUCTS**

**CONTENTS**

Attachment 1

1. Executive Summary - introduction
2. BOSMA & Steel Industry Structure
3. Non-conforming Products in Steel
4. Examples of non-conforming products in steel
5. The Economic Impact of non-conforming products
6. The impact of non-conforming building products on industry supply chains
7. Improvements to the Building Product Conformance Framework

## 1. EXECUTIVE SUMMARY

The Bureau of Steel Manufacturers of Australia (BOSMA) is the peak body representing the Australian steel manufacturers OneSteel, an Arrium business, and BlueScope Steel. BOSMA members supply the majority of steel mill products used in the Australian domestic market. (See section 2 for Australian steel industry structure.) OneSteel and BlueScope together employ around 12,000 people in Australia while total employment in the steel sector, both upstream and downstream, was estimated to be around over 100,000 (ABS 2011).

The sale of non-conforming building products in Australia is a form of unfair trade, by which companies whose products do not conform to Standards and building requirements undermine the viability of those firms whose products do conform, while imposing additional and unnecessary costs on the economy, and creating unacceptable risks to public safety. This is not a level playing field.

In BOSMA's opinion non-compliant steel being supplied into construction is part of an overall problem in establishing product conformity to the Australian Standards specified. There is evidence from a range of sources that some steels being supplied into projects are non-compliant with specifications and standards. There needs to be a better overall product conformity system and in the case of high risk construction safety related products like steel, there needs to be Government support.

The BOSMA position is that regardless of source of product, members of the supply chain must ensure that the steel products used in risk critical structural applications have been supplied from steel mill manufacturers which have Third Party Certification of their manufacturing output, demonstrating compliance with the relevant Standards. This is particularly important for high risk structural applications in construction where steel mill products are relied upon for the structural integrity of the building.

BOSMA is not calling for increased regulation but support from Government of the systems already in practice driven by industry need and with a proven track record. Frameworks such as this are well understood and accepted by competent steel mills worldwide, as Third Party Certificates of Product Compliance are already for them a low cost "reduced red tape" method of demonstrating compliance to Standards and correct test certificate data and identifying markings.

## 2. BOSMA & STEEL INDUSTRY STRUCTURE

The Bureau of Steel Manufacturers of Australia (BOSMA) is the peak body representing the Australian steel manufacturers OneSteel, an Arrium business, and BlueScope Steel. BOSMA members supply the majority of steel mill products used in the Australian domestic market.

The two biggest market sectors for steel used in Australia are steel reinforcement and associated steels used in concrete buildings and structures, and structural steel and associated steels used in steel framed buildings and structures.

The Steel Reinforcement Institute of Australia (SRIA) is the peak body for the reinforcing steel manufacture, distribution and processing value chain in Australia, and the Australian Steel Institute (ASI) is the peak body for the structural and flat steel manufacturing, distribution and fabrication value chain in Australia.

Arrium and BlueScope are companies with Australian and international operations employing around 17,000 people, and generate annual revenue of approximately \$15 billion. OneSteel and BlueScope employ around 12,000 people in Australia while total employment in the steel sector, both upstream and downstream, was estimated to be over 100,000 in Australia (ABS 2011). Their steel businesses operate across several hundred sites, servicing customers in a variety of industries, including the building & construction, manufacturing, infrastructure and agriculture sectors.

Steel is a fundamental building block of any modern society and as such, despite significant trade exposure, a domestic steel manufacturing capability is an important and strategically valuable asset. BlueScope and Arrium currently have over \$6 billion in capital invested in Australia and have a proud history of manufacturing quality steel products. The challenges presented by non-conforming steels and non-conforming steel building products have grown significantly in recent years as there is increasing evidence of increased incidence of these.

The supply chains for the various steel products have differing characteristics. The biggest market sectors for steel used in Australia are:

- steel reinforcement (rebar, mesh, strand) and associated steels used in concrete buildings and structures
- structural steel (beams and sections) and associated “black” uncoated flat steels used in steel framed buildings and structures.
- coated flat steels (e.g. COLORBOND ©)
- end-use building products and other products using steel

Steel reinforcement supply chain:

- Steel mills - domestic and overseas
- Reinforcement processors/fabricators/post tensioners/precasters/others such as wire fencing, concrete pipes etc.

Structural & Flat steel supply chain:

- Steel mills - domestic and overseas
- Steel distributors
- Steel fabricators
- Prefabricated components, modules and assemblies

Coated flat steels supply chain:

- Steel mills – domestic and overseas
- Steel distributors
- Roll formers and sheet metal fabricators

Steel building products supply chain:

- Products made from steel e.g. bolts, mesh, sheds, direct imported
- Component assemblies e.g. fabricated structural steel, domestic and imported
- Pre-assembled modules, domestic and imported

In the reinforcement supply chain the majority of steel mill product is currently covered by third party certificates of product compliance. However increased availability of non-compliant reinforcing products is putting significant stress on this sector, threatening employment volumes and margins.

In the structural/flat products supply chain, because of the extra distribution level, and the increased fragmentation of end-uses, the use of third party certificates of compliance for steel mill products is growing, but the voluntary nature of compliance is impeding this, again threatening employment volumes and margins. For prefabricated and modular assemblies, it is difficult to determine compliance of the individual steel products. This could be resolved if third party certification of product compliance was required for the base steels.

In the steel building products and coated steels supply chains, it is often very difficult for users and specifiers to determine whether compliant steel mill product has been used, as it is not the norm for suppliers to provide evidence of compliance for the steel they use. This could be resolved if valid branding and product marking requirements were specified and enforced.

The definition BOSMA is using for non-conforming steels and steel building products covers the following:

- Products that do not meet regulatory, Australian or industry standards
- Products that are not fit for their intended purpose
- Products that are not of acceptable quality
- Products that contain false or misleading claims
- Products that have false documentation
- Products that are counterfeit

Australia is part of a global supply chain and building and construction products are being sourced from both overseas and local manufacturers and suppliers. There is increasing evidence (see section 4) that many suppliers of products, regardless of where they are made, are not providing evidence that their products meet Australian Standards and building requirements, and hence they may not comply. In addition surveillance and enforcement of conformance to Standards and specifications are inadequate.

In November 2013, the Australian Industry Group (AiG) reported on the increasing evidence of non-conforming building products in the Australian market place. The report highlighted many factors that have created an uneven playing field for building product manufacturers in Australia and the complexity this creates for builders, trade contractors and building certifiers. The Australian Industry Group, 'The quest for a level playing field - The non-conforming building products dilemma', November 2013. [www.aigroup.com.au/link/gK](http://www.aigroup.com.au/link/gK)

How to assure product conformance to Standards and avoid the risks of using non-compliant steels are significant challenges for construction companies, engineers, specifiers and regulators. The potential damage to the Australian economy is significant, as detailed below.

The current systems and frameworks are inadequate to ensure that steels and steel building products meet the Standards called up in the National Construction Code (NCC) or specified in non-building construction projects. Standards Australia develops Australian Standards but does not have a direct role in ensuring the compliance of products or services with these standards. Australia trades in a global marketplace, but Australia does not mandate certified product conformity and compliance requirements to Standards. So while Standards are called up, the ineffective framework for surveillance and enforcement essentially relies on the goodwill of the suppliers to provide compliant product.

Design engineers and building surveyors are responsible to the project managers for checking compliance to specifications. Products used in building and construction should comply with the relevant quality and safety standards covered under the National Construction Code (NCC) which includes the Building Code of Australia (BCA) and referenced Australian Standards. Construction works not covered by the NCC, such as infrastructure and unique structures, are subject to the Standards, deemed-to-satisfy solutions and specifications nominated by the relevant designer/engineers and contract documentation. The relevant designer/engineer should also specify what level of evidence should be accepted as proof that a building product meets the specified standard.

As there is no effective regulatory mechanism for checking compliance to Australian Standards, a voluntary third party certification authority has been established - the Australasian Certification Authority for Reinforcing and Structural Steels (ACRS), which certifies the majority of reinforcing and structural steel products supplied into the Australian construction market from both local and overseas suppliers. In addition Steelwork Compliance Australia (SCA) has been established as a certifying authority for structural steelwork to Australian Standards. However as certification is voluntary, a significant proportion of steel product supply, particularly when supplied as components in pre-fabricated or modular assemblies, is not subject to checking for compliance.

Non-compliant steel is a particularly serious concern in high risk applications for steel mill products such as concrete framed and steel framed buildings and structures.

The Australasian Procurement Construction Council (APCC) reports that the average cost of rework due to Non-Conforming Products was between 0.25% and 2.5% of the overall contract value. The Australian Bureau of Statistics puts the size of the construction industry (residential, commercial and engineering) at \$151 billion in 2008/2009. This suggests that Non-conforming products are a significant cost, circa \$3 billion plus, to the overall construction industry and Australian GDP. Australasian Procurement and Construction Council, 'Procurement of construction products - A guide to achieving compliance', 2014. [www.apcc.gov.au](http://www.apcc.gov.au)

In a Product Conformity Requirements presentation on 18<sup>th</sup> April 2011, J Montgomery-Hribar from APCC summarised the impact of non-compliant products as follows:

- Construction products are estimated to be 30% of project costs
- Australian construction work is over \$150 billion per annum
- \$36 billion is spent on construction products per annum
- Construction waste is estimated at 30% - over \$10billion per annum

- Reducing that waste by just one third can result in a benefit of \$3.5 billion per annum
- Cost of rework on projects is up to 2.5% of total contract value
- On a \$5 million project – cost of rework is approx. \$125,000
- On a \$50 million project – cost of rework is approx. \$1,250,000

Rectification and waste costs are therefore highly significant

BOSMA sees the impact of non-conforming building products as follows:

- Reduced manufacturing volumes for building products manufacturers who comply with standards, as their sales are undermined by cheaper products from manufacturers and suppliers who do not comply
- Reduced prices and margins for compliant manufacturers
- Reduced employment at compliant manufacturers
- Compromised building site efficiency
- Compromised building site safety
- Difficulties in determining the compliance of key structural components for prefabricated and modular elements
- Project delays and extra costs due to rectification works and possible additional testing
- Consequential costs to involved parties e.g. redesigns and legal costs
- Substitution of steels with differing strengths and grades, leading to weldability problems, design intent compromised, and faulty galvanising and painting leading to corrosion
- Incompatibility of materials resulting from variation in material properties may cause unforeseen problems e.g. the addition of Boron on steels can cause cold cracking when welded unless the materials are appropriately prepared
- Reduced building durability e.g. galvanised and painted components with metallic coatings below requirements
- *Reduced ability for domestic manufacturers to generate the requisite economies of scale to be globally competitive, and thus lose our domestic manufacturing base.*

Non-conforming products may be rectified later if the incidence is discovered, but by this time the work has already been lost for local manufacturers and their employees, with the result that industries will decline or even disappear if regulatory authorities do not level the playing field to ensure fair competition. As well as employment risks, there are other economic costs which are detailed in Section 5.

Federal and State regulations need to be made more effective and mandating compliance needs to be considered. There are issues with Standards that are voluntary, specifications that are not enforced or policed, there is no current action role for the ACCC in building products (see <http://www.accc.gov.au/media-release/accc-address-to-master-builders-australia>), the role of Fair Trading departments is not clear for building products - Building ministers and COAG are still deliberating on this, and local councils and the Australian Building Codes Board (ABCB) do not see themselves in a pro-active enforcement role.

The current framework of building approvals and voluntary Standards does not give confidence to users and specifiers that compliant material is being supplied. The onus is on them to check and test and investigate to put their minds at rest, as the regulatory framework does not mandate compliance. Building Surveyors and Design Engineers have a myriad of items for signing off on a project, and even high risk items are not mandated for sign off by regulators. (Examples are given in Section 4 of non-conforming products in a range of steel product areas).

The BOSMA position is that regardless of source of product, members of the supply chain must ensure that the steel products used in risk critical structural applications have been supplied from steel mill manufacturers which have Third Party Certification of their manufacturing output, demonstrating compliance with the relevant Standards. This is particularly important for high risk structural applications in construction where steel mill products are relied upon for the structural integrity of the building.

A recognised international method of ensuring this is to mandate third party product certificates of compliance be used to assure quality compliance of ongoing production output. Third Party Product Certification provides a level of confidence for governments, certifiers and users across the world who are grappling with the issue of how to ensure compliance with specifications, and avoid the costs of rework and litigation.

This position is non-discriminatory, follows established international models for product certification, and is inclusive of imported steel mill steels, regardless of country of origin. Its purpose is to provide a transparent level playing field for all steel mill suppliers for high risk products, while minimising the immense risks of non-conforming products.

Frameworks such as this are well understood and accepted by competent steel mills worldwide, as Third Party Certificates of Product Compliance are already for them a low cost “reduced red tape” method of demonstrating compliance. Endorsement by Governments of Third Party Product Certification Schemes is exercised in the European Union by recognition of the Certifiers (Conformity Assessment Bodies) as “Notified Bodies for Third Party Product Certification”. The opportunity for Government in Australia is to do the same, as it will “reduce red tape” and provide an easy to use solution with which steel mills worldwide are familiar.

Third party certificates of product compliance provide confidence that constructors and specifiers will get the quality they are paying for and have specified, and satisfy the requirement to minimise risk and provide a level playing field. The advantages of these types of schemes are presented later in this submission.

### 3. EXAMPLES OF NON-CONFORMING PRODUCTS IN STEEL

There are many examples of non-conforming steels and steel building products. They include a wide range of examples.

- Products that do not meet regulatory, Australian or industry standards
- Products that are not fit for their intended purpose
- Products that are not of acceptable quality
- Products that contain false or misleading claims
- Products that have false documentation
- Products that are counterfeit

Examples of non-conforming products that compete with steel products:

- Products with lower metallic coating and/or paint film thickness than required by standards (AS 1397 and AS/NZS 2728).
- Paints with lead content above the 0.1% limit specified in the Poisons Standard - Paints and Tinters.
- Products not marked as per standards requirements (AS 1397).
- Products incorrectly described as BlueScope branded products.
- Products with false or non-compliant test certificates.
- There have been significant increases in prefabricated products and/or modular assemblies where demonstrating evidence of compliant steel mill product being used has been variable.
- Additional non-conforming steel product examples are given in the Attachment 2.

Some examples from other parties:

- Queensland Transport & Main Roads Final Report - STRUCTURAL STEEL INDUSTRY REVIEW- November 2011: (Source R Pritchard QTMR)
  - Queensland bus station case - focus on price not quality led to inconsistent quality due to 300 tonnes of steel sourced from 19 countries and 32 steel mills. Some steel was not conforming to standards requiring amendments to structure to cater for understrength.
  - Structural bolts purchased as commodity - leading to failures such as Wollongong Stadium and RAAF Fairbairn hangar
- NSW Fair Trading issued a public warning on 7<sup>th</sup> May 2012 after learning that hundreds of households may have hot water tanks manufactured and imported from China that have not been approved for use in Australia. (see <http://www.smh.com.au/environment/water-issues/warning-over-solar-hot-water-systems-20120506-1y76r.html>)
- Timber frame anchors & bracing - the Australian Building Code requires that structural connectors such as framing anchors and metal strap for tie down and bracing of timber framed buildings complies with AS1684.2-2010. The Standard states that these products must be manufactured from G300 or equivalent structural steel grade and have a corrosion protection provided by a minimum thickness of zinc coating equal to Z275 standard.
- Over a number of years beginning in 2010, Pryda a manufacturer of structural connectors for the construction industry in ANZ, carried out a series of internal tests of metal straps purchased from various hardware and trade outlets around Australia and representing a variety of manufacturers. These tests clearly pointed to a number of manufacturers using steel that did not perform when tested against products manufactured with the steel grade required by the standards. These tests were



repeated using an independent testing organisation and these results along with other forms of testing in our laboratory and by other companies, confirmed that products were being sold that did not conform to the standards required for domestic or commercial construction.

- Pryda has subsequently invested considerable time and energy to bring this issue to the notice of the industry, particularly the trade and hardware resellers to make them aware of the standards and their responsibility to provide their trade customers with products that are fit for purpose. (Source D Taylor Pryda)

The above are just some examples of where non-conforming products are misleading and frustrating the intent of the designer, project manager and consumer to experience the level of quality product that he or she has assumed they will receive. Additional non-conforming steel product examples are given in Attachment 2.

BOSMA advocates for a fair market in Australia for all building and construction product manufacturers, suppliers and users. Designing, manufacturing and testing products to Australia Standards comes at a cost to which all manufacturers should be subject.

#### 4. THE ECONOMIC IMPACT OF NON-CONFORMING PRODUCTS

In effect, the sale of non-conforming building products in Australia is a form of unfair trade, by which companies whose products do not conform to standards and building requirements undermine the viability of those firms whose products do conform, while imposing additional and unnecessary costs on the economy, and creating unacceptable risks to public safety.

Non-conforming products may be rectified later if the incidence is discovered, but by this time the work has already been lost for local manufacturers and their employees, with the result that industries will decline or even disappear if regulatory authorities do not level the playing field to ensure fair competition.

As well as employment risk, there are other economic costs.

- Economic costs from health and safety impacts
  - Potentially loss of life resulting from installation or product failures/non-conformances
  - Health impacts from exposure to hazardous substances
- Direct economic loss due to product failures or events due to non-conforming products
  - Rebuilding or repairing buildings or structures that have failed (e.g. sheds, road furniture, fire damaged structures)
  - These costs are typically borne by the owner, builders or insurance
- Cost of product recalls
  - For example Infinity Cables, Fire Resistant fibre boards, incorrect hazard labelling on paints
  - Costs include inspections, removal, repairs and replacement, lost amenity.
- Shorter building or structure life due to building products that do not meet durability requirements
- Impacts from the closure of manufacturing businesses or reduced capacity in part due to meeting the costs of compliance (higher cost materials or specification and systems to ensure standards are met) competing against lower cost non-compliant products.
  - Reduced tax, local expenditure, increased welfare and transition payments
- Impacts from the closure or reduction in capacity of building and construction stakeholders that do not compromise on product conformance, competing with stakeholders that leverage non complying products to reduce costs.

## 5. THE IMPACT OF NON-CONFORMING BUILDING PRODUCTS ON INDUSTRY SUPPLY CHAINS

BlueScope and OneSteel aim to supply products that are fit for purpose and meet the National Construction Code and referenced Australian Standards. We aim to ensure our products meet the deemed to satisfy requirements of the NCC to make compliance as simple as possible for external stakeholders.

Steel products are supplied at different levels of the supply chains and in different ways:

- Reinforcing prestressing structural and tubular steels ex steel mill manufacture
- Alloy, coated and other refined steel products ex steel mill or specialised processor
- Prefabricated end-use products and pre-assembled modules that are directly imported
- Steel building products and other products using steel

As per the terms of reference, we need to look at the differing ways in which non-compliant product can enter the different supply chains.

The supply chains for the various steel products have differing characteristics. The biggest market sectors for steel used in Australia are:

- Steel reinforcement (rebar, mesh, strand) and associated steels used in concrete buildings and structures
- Structural steel (beams, plate sections and pipe & tube) used in steel framed buildings and structures.
- Coated flat steels and associated building products - metallic coated and pre-painted steels used for light framing, roof sheeting, decking and other rollformed product
- Other steel products e.g. hollow sections (pipe and tube), building accessories (nail plate, bolts), prefabricated buildings and building elements

Steel reinforcement supply chain:

- Steel mills - domestic and overseas
- Reinforcement processors/fabricators/post tensioners/precasters/others such as wire fencing, concrete pipes etc.

Structural & Flat steel supply chain:

- Steel mills - domestic and overseas
- Steel distributors
- Steel fabricators
- Prefabricated components, modules and assemblies

Coated flat steels supply chain:

- Steel mills –domestic and overseas
- Steel distributors
- Roll formers and sheet metal fabricators

Steel building products supply chain:

- Products made from steel e.g. bolts, mesh, sheds, direct imported
- Component assemblies e.g. fabricated structural steel, domestic and imported
- Pre-assembled modules, domestic and imported

In the reinforcement supply chain the majority of steel mill product is currently covered by third party certificates of product compliance. However increased availability of non-compliant reinforcing products is putting significant stress on this sector, threatening employment volumes and margins.

In the structural/flat products supply chain, because of the extra distribution level, and the increased fragmentation of end-uses, the use of third party certificates of compliance for steel mill products is growing, but the voluntary nature of compliance is impeding this, again threatening employment volumes and margins. For prefabricated and modular assemblies, it is difficult to determine compliance of the individual steel products. This could be resolved if third party certification of product compliance was required for the base steels.

In the steel building products and coated steels supply chains, it is often very difficult for users and specifiers to determine whether compliant steel mill product has been used, as it is not the norm for suppliers to provide evidence of compliance for the steel they use. This could be resolved if valid branding and product marking requirements were specified and enforced. Coated steels are generally used for lower risk applications but conformance to standards supports structural integrity and building durability.

There is a significant cost to manufacturers to develop, test, design, and manufacture products to meet Australian Standards and the NCC. For example:

- BlueScope invested significant resources to conduct extensive testing for over 10 years to support the introduction of next generation ZINCALUME® steel and COLORBOND® steel and incorporate aluminium/zinc/magnesium alloy-coated steels in the relevant standards and codes. This includes corrosion testing, paint durability testing, suitability for use with drinking water, flammability and combustibility testing.
- BlueScope and OneSteel invest in quality systems that ensure products consistently meet Australian Standards
- BlueScope and OneSteel invest in Third Party Accreditation for steel reinforcing and structural products
- Australian Standards and Codes include requirements for minimum thickness and width tolerances, strength, metallic coating and paint thickness and performance, and exclusion of hazardous substances. Non-conforming products may involve reductions in materials or less expensive material that could result in considerable savings and a cost advantage. Even slight reductions below standards could provide millions in savings and a competitive advantage while resulting in reduced building durability and increased risk for builders and end users.
- BlueScope and OneSteel invest in resources to monitor and contribute to changes in the NCC and Standards, to help improve Standards, and to support innovation and maintain compliance.

Non-conforming products may provide suppliers with a competitive cost advantage over manufacturers who invest in products that conform with the relevant Standards and codes. This may result in lost business and reduced revenue to invest in maintaining and developing operations.

The trend towards prefabrication and modular solutions increases the complexity of ensuring compliance and may increase the probability of non-compliance given these involve design, building product components, fabrication, welding etc.

Ultimately, supply of non-conforming building products potentially undermines the viability of manufacturers who supply conforming products.

## 6. IMPROVEMENTS TO BUILDING PRODUCT CONFORMANCE FRAMEWORK

The current framework of building approvals and voluntary Standards does not give confidence to users and specifiers that compliant material is being supplied. The onus is on them to check and test and investigate to put their minds at rest, as the regulatory framework does not mandate compliance, as explained above.

There are models around the world that promote and/or ensure compliance. These are worthy of attention by government in order to reduce the incidence, cost and risks of non-conforming products.

Mandating compliance to Standards and ensuring the building approval process is dependent on adherence to Standards would be of great assistance in ensuring:

- Stakeholder certainty on whether a product conforms and that conforming products are used and installed properly
- Safe buildings, facilities and infrastructure - during and after construction
  - Reduce risk – Fire, Structural, Health (e.g. hazardous substances (VOC's, lead), water penetration)
- Protecting asset value, amenity and ongoing costs
  - Minimise Rework and Rectification
  - Meet product durability expectations (also impacts safety and sustainability in medium to long term)
  - Comply with energy efficiency requirements and claims
- Achieving a fair market in Australia for all building and construction product manufacturers, suppliers and users
- Reducing the cost of waste (rectification, recalls, failures) and confusion
- Improving safety on site

Possible improvements to current frameworks

- Joint Approach – Industry and Governments to work together to combat non-conforming products. Short Medium and Long Term approaches require investment from key stakeholders in industry and government over a sustained period of time
- A Risk based approach will identify the priority areas
  - Improved baseline for all products
  - Most comprehensive approach for high risk buildings/structures or high risk factors – fire, structural integrity
  - Encourage Third Party Product Certification for high risk building products & applications.
  - Register for high importance products - backed by certified testing
- Benchmark effective mechanisms in other jurisdictions that could work here e.g. EU notified bodies to certify product compliance
- Improved information, communication and coordination – improved clarification of requirements and how to demonstrate these are met
- Policing and enforcement - improved surveillance and auditing of priority building products - stiffer penalties for non-conformance
- Clarify and improve how conformance is demonstrated
  - Standards or NCC or other to be more prescriptive
  - Improve test certificate requirements for steel
  - Mandate certificates of product compliance for steel

- Product Marking requirements to be upgraded
- Greater deterrents – increased penalties and enforcement for non-conformance.
- Greater visibility of non-conformance – national register e.g. CROSS type scheme in the UK – see [www.structural-safety.org](http://www.structural-safety.org)

BOSMA also supports the initiatives proposed by the Construction Product Alliance (CPA) in relation to the impact of non-conforming building products on the public interest and building approval processes, in their submission to the COAG Building Ministers Forum.

## 7. INITIATIVES TO ASSURE PRODUCT CONFORMANCE OF STEELS

To ensure greater product conformance and compliance of steel mill products, BOSMA sees the following priorities:

- Ensure standards are normative where they are informative, and for high risk products have a product conformance process based on third party product certification of suppliers' manufactured output on an ongoing basis (not just manufacturing capability).
- Recognise and support current industry third party certification schemes to be JAS-ANZ accredited and to achieve status of "Notified Bodies for Conformity Assessment" as per the EU model, in order to recognise their ability to assure compliance by offering certificates of product compliance.

The current systems and frameworks are inadequate to ensure that steels and steel building products meet the Standards called up in the National Construction Code (NCC) or specified in non-building construction projects. Standards Australia develops Australian Standards but does not have a direct role in ensuring the compliance of products or services with these standards. Australia trades in a global marketplace, but Australia does not mandate certified product conformity and compliance requirements to Standards. So while Standards are called up, the ineffective framework for surveillance and enforcement essentially relies on the goodwill of the suppliers to provide compliant product.

The BOSMA position is that in the absence of government regulation of steel product quality and conformance to Standards, that third party product certificates of compliance be used for high risk products as per established international practice to assure quality of ongoing production output. Third Party Product Certification provides a level of confidence for governments, certifiers and users across the world who are grappling with the issue of how to ensure compliance with specifications, and avoid the costs of rework and litigation.

There is a worldwide trend to manage this exposure by the establishment of third party product certification schemes, with over twenty western countries now having third party assessment schemes. For example third-party certifiers of long-standing in Europe include UKCARES, Deutsches Institut für Bautechnik, and IGQ – Istituto Italiano di Garanzia della Qualita. Canada also uses a national accrediting authority model to certify a range of construction products. Third-party certification schemes are generally structured around the requirements of the International Standard for such bodies – IS17065 General requirements for Bodies operating Product Certification Systems.

In Australia there are now a number of third party certification schemes, such as those operated by the Australasian Certification Authority for Reinforcing and Structural Steels (ACRS), Steelwork Compliance Australia (SCA), the Australian Window Association (AWA) and the Engineered Wood Products Association (EWPA). The Joint Accreditation System of Australia and New Zealand (JAS-ANZ) also offers accreditation to product certification bodies or Conformity Assessment Bodies (known as CAB's).

The benefits of third-party certification to the construction industry, its specifiers and clients include assured quality of product irrespective of source, increased confidence in material quality, reduced risk for all parties to a project and reduced possibility of failure, and remedial work or delay. Additionally there is certainty that the products meet the requirements of the relevant Australian Standard, avoiding the need for separate



inspections at the manufacturer, separate independent testing and checking test certificates.

In these difficult times choosing compliant products is even more important as the temptation to cut corners, or make do with sub-standard materials is fraught with danger. There have been many examples reported of failures of products on building sites. Many more problems are likely to occur, but are not reported, or made known to the specifier, purchaser and user.

Suppliers, users, specifiers and certifiers all need effective processes in place to reduce the risks as they take responsibility for construction product quality and the consequences if product failures occur. Government needs to support everyone involved in the building process to think of how they can reduce their risks and liabilities which encompass safety, cost of repairs, penalties and legal expenses to name just a few of the exposures.

The objective must be to have processes in place that ensure problems are avoided upfront, by ensuring reputable supply and confidence in quality provided, particularly for different types of materials which nowadays as well as individual products include fabricated and pre-assembled components.

BOSMA recommends action by the Government to recognise risk based Third Party Product Certification of building products and construction materials as an effective and transparent means of determining compliance. In the steel sector BOSMA recommends that the Government recognises robust Third Party Product Certification schemes such as the Australasian Certification Authority for Reinforcing and Structural Steels (ACRS) or equivalents for demonstrating compliance.

Procurement and specification bodies should demonstrate that the steel products used in high risk critical structural applications have been sourced from a steel mill certified by ACRS or a demonstrated equivalent certification body. This position is non-discriminatory, follows established international models for product certification, and is inclusive of imported steel mill steels, regardless of country of origin. Its purpose is to provide a transparent level playing field for all steel mill suppliers, while minimising the immense risks of non-conforming products.

Frameworks such as this are well understood and accepted by competent steel mills worldwide, as Third Party Certificates of Product Compliance are already for them a low cost "reduced red tape" method of demonstrating compliance. Endorsement by Governments of Third Party Product Certification Schemes is exercised in the European Union by recognition of the Certifiers (Conformity Assessment Bodies) as "Notified Bodies for Third Party Product Certification". The opportunity for Government in Australia is to do the same, as it will "reduce red tape" and provide an easy to use solution with which steel mills worldwide are familiar.

Thank you for the opportunity to make a submission to Senate inquiry into non-conforming building products. Please do not hesitate to contact me if you have any questions about our submission. We will be pleased to answer any questions and provide further clarity.

Yours faithfully,

David Armston FAICD  
Executive Director & Secretary