

BOSMA PC International Standards Issues – V5

The Productivity Commission (PC) has been asked to provide advice for the following - adopting international and overseas standards in regulatory frameworks and harmonising regulated standards across Australia. Submissions close on June 6th.

The letter commissioning this study asks the PC to advise on ‘adopting international and overseas standards in regulatory frameworks, and harmonising regulated standards across Australia, in priority sectors.

The PC advises that harmonising Australian standards with trusted international standards can allow Australian firms to more easily participate in global markets. In Australian domestic markets, harmonised standards can increase the range of goods and services available, potentially leading to lower prices, improved quality and a more innovative economy,

However the PC also acknowledges that there can be situations where harmonisation with international standards is not appropriate. The international standard may not address specific Australian risks or objectives.

The Bureau of Steel Manufacturers of Australia (BOSMA) is the peak body representing the Australian steel manufacturers BlueScope, Liberty Primary Steel and InfraBuild,

BOSMA Overview is as follows:

BOSMA submits that there are significant issues on safety of structures if overseas standards are not reviewed by the appropriate Standards Australia technical committee. This needs to be prior to any approvals for design, and engineering in construction and the materials used and specified.

The BOSMA position is that overseas standards are already reviewed for application in Australia, and the key principles are incorporated in revisions of Australian Standards where possible. Where engineering and materials issues are required for building safety, then these parameters are incorporated. Standards Australia have mirror” committees with international bodies in order to identify developments and opportunities.

Proposals to harmonise with ISO Standards or “Trusted international standards” (TIS) are regularly proposed by Standards committees who make the case for specific A/NZ standards as required. Differences in performance characteristics, welding regimes, safety issues, local site conditions etc. require specialist design and construction parameters, and adherence to product material specification and usage.

Understanding the principles for safe product materials manufacture, for optimal and innovative engineering design, and product performance characteristics are fundamental. Expert oversight is a key part of the Standards process.

There is widespread concern that overseas batches of building materials are supplied to their local origin specifications and not the correct required engineering parameters, leading to concerns on building resilience.

Understanding where overseas manufacturers may take short cuts that threaten the safety of buildings is also fundamental. Overseas manufacturers have been known to change steel grades and specifications which threaten design safety.

Some examples illustrating why steel standards have a greater risk, are as follows:

For instance, where steel is being sold as one grade and then upgraded to higher grades after purchase. This practice significantly increases the risk of building safety and resiliency. Consequently, compliance managers and certifiers need to be aware of these risks.

The Australasian Certification Authority for Reinforcing and Structural Steels (ACRS) is the local conformity assessment body, and they assess some overseas standards and warn of inadequate quality.”

ACRS has become aware of some end-users purchasing lower grade steel, having some key material properties tested at a laboratory, and then upgrading the product based on this limited testing. We have also seen occurrences of end-users upgrading product to a higher strength grade based on test certificates. Common examples are purchasing a 350 grade and then, based on a third-party impact test, upgrading it to 350L0; or upgrading a 350 grade to a 400/450 grade after reviewing test certificates.

“Grading by selection” violates the statistical methods used to calibrate the capacity factors (ϕ) in AS 4100 [1] and NZS 3404 [2], the Australian and New Zealand Steel Structures Standards, and hence may lead to the design limit states being exceeded for a structure.

The practice of grading by selection [3] is described as choosing product that has been manufactured to a particular grade and Standard and making claims that a batch of product meets a higher grade or Standard based on one or two tests from that batch. Using steel that has been graded by selection in structures designed in accordance with AS 4100 and NZS 3404 may lead to a reduction in its reliability, overstress and in extreme cases collapse or failure of the structure.

There are issues on amendments to overseas standards such as CEN and JIS changes may not be communicated leading to added risk.

There are concerns about the Technical Committee’s ability to maintain the Standard given Standards Australia does not have any representation with CEN or the JIS Standard’s Committees. When one Australian Standard which is referenced by another Australian Standard is amended, the Committee responsible for the Australian Standard is advised and has to opportunity to comment on the referenced Standard and/or revise the other as appropriate.

In the case of, an Australian Standard referencing a regional Standard that same opportunity does not exist. For example if the JIS Committee can change the chemistry limits for steel complying with the JIS without advising the SA Committee, even if they did we would be unable to influence the change. Of greater concern is that the Committee is unaware of the change. This would lead to the possibility that welding procedures reference in AS/NZS5100.6 are no longer valid yet acceptable in accordance with that same Standard.

The calibration of strength reduction factors (ϕ) for design, no matter how rigorous, only applies if the material conforms to the requirements of the Standard to which it has calibrated. Initial type testing (ITT), factory production control (FPC) and production testing are necessary to ensure that the product conforms to the requirements of a Standard.

Given that in Australia, there is no regulatory requirement for ITT and FPC governing steels produced to EN or JIS Standards, strength reduction factors in Table 3.2 will not necessarily apply. Thus the expected levels of safety may not be achieved if these steels are used in the scope of this Standard.

The absence of ITT requirements also allows the process of selective grading to further erode safety levels. For example, a factory producing 250MPa grade product may regrade this product to 300MPa grade if it is produced to a Standard that does not mandate ITT.

There are current proposals to allow more use of overseas standards in New Zealand. Similar concerns exist with added complication of seismic requirements new regulations which will allow overseas-certified steel products into New Zealand. The regulations are aimed to ease supply pressures, but strict compliance with NZ's seismic and durability standards remain essential. Each product must still be assessed to ensure it meets the NZ Building Code and is suitable for local conditions.

The potential fragmentation of the ABCB building codes as discussed for NCC25 will only exacerbate these issues. Consistent implementation of current local Australian Standards across all jurisdictions is fundamental if incorrect product supply is to be avoided.

Industry Technical Infrastructure Forum (ITIF) Consensus response to National Productivity Commission Review:

BOSMA support the ITIF summary on international standards issues..

- there should not be barriers to international adoption where this is appropriate
- access to standards including international standards is an essential consideration
- Australia should increase participation in international standards development including ISO / IEC and similar entities in other parts of the world
- international practices that are codified in standards are variously transferable to Australia without issue

- the process of local expert evaluation via a Standards Australia Technical Committee prior to adoption is essential, with additional oversight and enforcement of conflict-of-interest issues within committees
- Trusted standards should be defined by review of a Standards Australia technical committee
- The CodeMark scheme provides an avenue for adoption of international standards within the current technical infrastructure arrangements in Australia
- Streamlining regulations which call up standards is vital
- Crucial to ensure a timely response to needs for standardisation which drives Standards Australia as essential to maintain this capacity within Australia

PC Information request

- *Are there examples of Commonwealth, state, territory or local government regulation where there should be greater harmonisation with international or overseas standards and related conformity assessments or approvals? What sectors should be prioritised for reform?*
- *What is the impact of a lack of harmonisation (e.g. on compliance costs for export, import or multinational businesses, product range, prices, quality, competition, innovation and international trade and investment)?*
- *What are the barriers to greater harmonisation?*
 - *For sectors where regulators can mandate standards by incorporating international standards as in force from time to time or accept overseas conformity assessments and approvals (e.g. road vehicles, therapeutic goods, agricultural and veterinary products, maritime, industrial chemicals and, most recently, consumer products), how is this operating in practice?*
- *Are there any reforms that should be made to Australia's standards and conformance infrastructure to support greater harmonisation while still addressing specific Australian risks and objectives?*
 - *What measures could support access to international standards incorporated in Australian regulation?*