TECHNICAL:

Building Code compliance - product alert

Background:

Advice has been received from the Australian Government’s Minister for Industry, Tourism and Resources regarding the quality of some plywood products and structural steel bolts entering the Australian market from overseas. Similar concerns have also been expressed regarding some imported smoke alarms and window assemblies.

Discussion:

The Building Code of Australia (BCA) references various Australian Standards, which in turn reference other Standards that specify the quality of materials and products to be used in the construction of buildings to meet the safety objectives of the BCA. It would appear however, that compliance with these Standards is not being met because imported products and materials entering the Australian market are not being adequately checked for compliance and in at least once instance, a structural failure has occurred because non-complying bolts have been used.

The Minister noted that the Building Code of Australia prescribes standards for the design and construction of buildings (including components such as structural plywood products and structural steel bolts) and the type of evidence that can be used to demonstrate compliance with those standards.

In South Australia, a recent amendment to Section 45 of the Development Act has identified that importers and suppliers of products intended to be incorporated into buildings can be held responsible if their products subsequently fail or cause parts of a building to not comply with the Building Rules.

It is therefore important that all industry practitioners ensure that they have systems in place for checking compliance of products and systems to be incorporated into buildings.

Structural steel bolts used in the erection of steel structures is of particular concern as bolted connections can be the weakest link in any structural steel framework if the incorrect type of bolt is used. Design engineers and fabricators of steel structures should therefore ensure that bolts complying with relevant Standards are specified, including any documentation required to be supplied to verify compliance.

Bolt suppliers and end users such as fabricators, builders and site engineers should ensure that complying bolts are used by obtaining appropriate documentary evidence of compliance for each batch of bolts and associated nuts and washers that they order or use. The BCA outlines the type of evidence.
that is acceptable, and in the case of structural bolts, a test certificates from an independent NATA or other accredited testing authority verifying compliance is considered acceptable evidence of compliance.

**Conclusion:**

This matter has been brought to the attention of all participants in the industry in the interests of ensuring:

- public safety,
- products are fit for purpose, and
- products and assemblies comply with the Building Rules.

All participants in the industry need to be vigilant with any new product to the market particularly when it is of unfamiliar origin.

Specifying that products are manufactured ‘in accordance with’ an Australian Standard may no longer be sufficiently reliable and it would be prudent for all stakeholders to request appropriate evidence verifying compliance with Australian Codes and Standards to address the risk of incurring liability should those products or assemblies using those products fail to comply with the Building Rules.

Further information that may be useful on how to identify whether correct steel bolts are being used is available in a Discussion Paper on the topic, published in the Journal of the Australian Steel Institute (Volume 39 Number 2 – December 2005).