Meeting the New Quality Benchmark for Structural Steelwork

ASI and the Compliance Journey

The risk to our community of non-compliant construction products has featured prominently in the media, both in Australia and internationally. High profile examples, such as the Grenfell Towers tragedy, tend to overshadow the reality that non-compliance is an endemic problem and, given the wrong circumstances, can lead to injury or death in seemingly innocuous situations. Strong leadership and direction from both industry and Government is needed to address these issues.

For its part, ASI has been on a planned and managed journey to improve the compliance outcomes for structural steelwork in Australia, for the benefit of our members and the greater Australian community.

Compliance must be addressed and managed across the complete steel supply chain. As such, ASI has put in place a multi-faceted initiative, the major components of this include:

- The new Australian Standard AS/NZS 5131 **Structural steelwork – Fabrication and erection** provides a unified, transparent and definitive view of what 'good practice' looks like, and forms the technical foundation for many of our other components.
- The **National Structural Steelwork Specification** (NSSS) provides engineers and specifiers with a straightforward way to implement AS/NZS 5131 requirements in the project process.
- The **National Structural Steelwork Compliance Scheme** (NSSCS) provides engineers, builders and the client with a packaged solution for cost-effective compliance outcomes.
- **Steelwork Compliance Australia** (SCA), a separate company established by ASI to administer third-party certification of fabricators under the NSSCS.
- Continuing engagement and awareness with the industry, community and Government to ensure outcomes meeting '**duty of care**' under Workplace Health and Safety (WHS) regulations are supported across the complete project delivery chain.

AS/NZS 5131 – Structural steelwork – Fabrication and erection

AS/NZS 5131 defines good practice for the fabrication and erection of structural steelwork for projects in Australia, using a risk-based fit-for-purpose approach. It provides the technical basis for the NSSCS and establishes a quality benchmark that is responsive to the needs of both projects and clients.

This quality benchmark is established via the requirement for engineers to specify a steel fabrication Construction Category (CC) in project specifications. The CC establishes the correct level of quality and assurance controls to ensure the structure meets the engineer's design assumptions and level of risk mitigation under obligations implicit in the *Workplace Health and Safety Act (2011)*. The fabricator must have the processes in place to satisfy the specific CC.

Key documents are the **National Structural Steelwork Specification** (NSSS), along with **Standard Drawing Notes** (SDN) for engineers and specifiers, which were released after peer reviews by several prominent engineering practices. The documents facilitate uniform and consistent reference to AS/NZS 5131 and reduce the misalignment of expectations and contractual issues.

The Current Context

Currently, the NSSCS has approximately 53 fabricators certified or finalising their certification, with another 20 or so in the system. Fabricators are predominantly certified to CC2, with an increasing number certified to the higher CC3.

The NSSCS, and foundational supporting tools such as AS/NZS 5131 and the NSSS, have garnered significant traction in the market, evidenced by:

1. Increasingly, sighting of project specifications which call up AS/NZS 5131
2. A number of specifications that are worded in a similar way to the ASI NSSS
3. A number of specifications calling up third party certification, in some cases the ASI NSSCS specifically and/or certified fabricators
4. Increasing engagement with and support from state governments

State Government Support

At a state government level, the ASI has engaged in discussions at both the Ministerial and Departmental levels around the country.

In South Australia, AS/NZS 5131 is now mandated in all South Australian Government funded projects, to be ACRS certified steel and certification through SCA for fabricators.

In New South Wales (NSW), the NSW Procurement Board issued a Directive to all NSW Government Departments mandating AS/NZS 5131 into specifications. The NSW finance minister also committed to providing funding support to SCA to undertake JAS-ANZ accreditation. Finally, Roads & Maritime Services (RMS) have launched an investigation into the 'Risk of Nonconforming Imported Construction Products', engaging the ASI for expert input. It is expected that one of the outcomes of this investigation will be strong support for third party certification for safety critical components, such as structural steel.

All Western Australian Government departments and agencies have been advised to use AS/NZS 5131 where steelwork is specified, and all Main Roads Department specifications require CC compliance and third party certification. The Western Australian Department of Jobs, Tourism, Science and Innovation is funding an ongoing rebate for fabricators, which covers 75% of the cost of SCA certification.

In Queensland, there is increasing support for the inclusion of AS/NZS 5131 in government contracts when referenced in AS 4100. There is also an increasing number of engineers specifying CC and referencing AS/NZS 5131 in project documentation. As such, there has been strong support from fabricators in gaining certification (second only to South Australia); there are currently 10 fabricators certified in Queensland, with numbers growing steadily. The Queensland Government has also instituted the 'Chain of Responsibility' legislation requiring all parties in the building products chain to accept responsibility for conformance of their product.

JAS-ANZ Accreditation

SCA is in the process of obtaining accreditation in accordance with the Joint Accreditation System of Australia and New Zealand (JAS-ANZ). JAS-ANZ is an independent third-party accreditation authority and framework, designed to strengthen national, Trans-Tasman and international trade and commerce.

The ASI recently completed stage one of the JAS-ANZ accreditation process. This stage required completion of a detailed 'Scheme Manual', undertaken by the ASI Scheme Technical Advisory Committee (TAC). Once the Scheme is approved by JAS-ANZ, SCA will proceed to the next stage, which includes a systems assessment and a compliance assessment.

For more information about JAS-ANZ accreditation, visit: **http://www.jas-anz.org**.

Recently Certified ASI Members

For the complete listing of Certified fabricators by state, visit: **www.scacompliance.com.au**

National Structural Steelwork Compliance Scheme

The ASI 'National Structural Steelwork Compliance Scheme' (NSSCS) has been operating in the market since late 2014. It is an independent, third party quality compliance and certification system for the supply, fabrication and erection of structural steelwork in Australia. Initially, fabricators were certified under the NSSCS to the ASI 'Structural Steelwork Fabrication and Erection Code of Practice', which was the precursor to AS/NZS 5131. When AS/NZS 5131 was published in late 2016, certifications were progressively converted across.

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With technical basis for the NSSCS founded on AS/NZS 5131, the Scheme is applicable to structures designed to AS 4100 (structural steelwork), AS 5100.6 (bridges), and supporting Australian Standards including those for welding, bolting and corrosion protection.

The NSSCS comprises four pillars:

- Fabrication Standard: The new Australian Standard AS/NZS 5131 was published in December 2016. It sets the technical basis for the NSSCS and defines 'product conformity'.
- Conformity Assessment: The process for checking conformity to the performance intent of AS/NZS 5131. Currently this has been established by Steelwork Compliance Australia (SCA).
- Steelwork Compliance Australia (SCA): The separate body established to audit and certify fabricators to one of the risk-based CCs defined in AS/NZS 5131.
- Risk identification: The level of risk is defined by the CC selected by the engineer for the particular project or a component of the project.

The objectives of the NSSCS are to:

1. Establish a transparent, definitive and actionable quality bar: in planning for the Scheme, ASI recognised that the industry needed a sound technical foundation on which to base the Scheme. The ASI, by underwriting the development of the new AS/NZS 5131 'Structural steelwork – Fabrication and erection' has supported this objective.
2. Support industry with convenient tools to help ensure compliant outcomes: our 'National Structural Steelwork Specification' (NSSS) and the 'National Structural Steelwork Compliance Scheme' (NSSCS), together with national awareness and training, support this objective.
3. Focus the industry on whole-of-life costs: the predominant procurement KPI was initial cost, with compliance 'negotiable', often put in the 'too hard basket' to do properly. By providing cost-effective pragmatic tools, the ASI has been able to convince a significant majority of the procurement community to choose compliant outcomes and pay due regard to whole-of-life costs.

Need Help?

The ASI has a range of tools and resources available to assist structural engineers, developers, government bodies, and fabricators alike.

For further details about the NSSCS, or to download a free copy of the National Structural Steelwork Specification and Standard Drawing Notes, visit: **http://steel.org.au/key-issues/compliance**.

For a list of steel fabricators independently certified to the NSSCS, visit: **http://www.scacompliance.com.au/certified-companies/**.