

Eurocodes: the new British standards for structural design

The Eurocodes become Britain's new standards for structural design on 1 April 2010. **Haig Gulvanessian**, chairman of ICE's Eurocodes expert panel, encourages all civil and structural engineering designers to embrace them fully.

It is now just a few weeks to 31 March 2010, the date when national standard institutions within the EU and European Free Trade Association are obliged to withdraw all national standards that conflict with the European Committee of Standardization's suite of structural Eurocodes.

In Britain BSI will withdraw 57 national standards, including all or most parts of well-known codes such as BS 5268 for timber, BS 5400 for bridges, BS 5628 for masonry, BS 5950 for steel, BS 6399 for loading, BS 8004 for foundations and BS 8110 for concrete.

From 1 April 2010, the national codes of practice for the design of buildings and civil engineering works in the UK will be the 58 parts of the ten new BS EN Eurocodes. While they may not suit everyone, the whole construction industry needs to embrace them and move forward.

Adopting a positive strategy

Inevitably, the Eurocodes and their implementation have been and will continue to be the subject of debate and discussion, which is healthy and necessary. However, the sceptics need to recognise that implementation is inevitable and should start channelling their efforts into improving Eurocode design aids and support resources rather than challenging implementation.

As of now, UK design businesses and individuals should be deciding on their individual strategies for Eurocode implementation as a matter of urgency. In particular, they need to plan how to maximise the opportunities and minimise the threats posed by the wide-open international market Eurocodes will create – not just in Europe but throughout the world.

The strategy should depend very much on work portfolios, such as proportion of design work relating to projects outside the UK, percentage of UK and European public works design, and amount of design relating to construction products and components manufactured off-site.

Compliance with regulations

The requirement to use Eurocodes is governed by EU directives on public procurement and construction products, which are enacted in the UK as the Public Contracts Regulations 2006 (HMG, 2006) and the Construction Products Regulations 1991 (HMG, 1991) respectively. As such, most UK public sector organisations, utilities and product manufacturers will be using Eurocodes for all new designs after April 2010.

While withdrawn codes may still be used on private-sector buildings to meet UK building regulations, they will no longer be maintained or reviewed by BSI. BS EN Eurocodes, on the other hand, will be maintained and reviewed and will represent the most up-to-date information.

Therefore, in any legal proceedings relating to structural design, the courts and other dispute-resolutions forums will most likely refer to Eurocodes – the state-of-the-art standards – to reach their decisions. Continuing to use withdrawn standards rather than Eurocodes on non-public-sector works could put structural designers and their insurers at increasing risk.

Support and guidance

Significant guidance on the implementation of Eurocodes – far greater than in any other European country – has been made available to the construction professionals in the UK by the government, major institutions, research organisations and trade organisations. Full details are on the ICE-run Eurocodes Expert website at www.eurocodes.co.uk.

For example, overseen by its Eurocodes expert panel, ICE has published a comprehensive range of Eurocodes designers' guides and runs an extensive programme of public and in-house training courses and workshops.



All Eurocode implementation support resources in the UK are indexed on the ICE-run Eurocodes Expert website at www.eurocodes.co.uk

Conclusion

The Eurocodes are here to stay. They

- represent the most wide-ranging change to codification of civil and structural design ever experienced
- are the most technically advanced suite of civil and structural design codes in the world and encourage innovation
- have been significantly influenced by the UK during their development
- present significant opportunities for export of design expertise and products.

An ordered implementation of Eurocodes by the British construction industry is vital to ensure the country profits from the benefits afforded by the new codes and, more importantly, does not lose out from the threats global implementation may bring.

It is a once-in-a-lifetime opportunity.

References

- HMG (Her Majesty's Government)(1991) Construction Products Regulations 1991. The Stationery Office, London, Statutory Instrument 1991 No. 1620.
 HMG (2006) The Public Contracts Regulations 2006. The Stationery Office, London, Statutory Instrument 2006 No. 5.

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