

To:

The Chief Executive
Unitary, Metropolitan, District and London Borough Councils in England
County and County Borough Councils in Wales

The Town Clerk, City of London
The Clerk, Council of the Isles of Scilly
The Sub-Treasurer, Inner Temple
The Under Treasurer, Middle Temple

The Head of Building Control
Unitary Metropolitan, District and London Borough Councils in England
County and County Borough Councils in Wales
City of London
Council of the Isles of Scilly

Approved Inspectors

cc: The Chief Executive:
County Councils in England
National Park Authorities in England & Wales

The Chief Fire Officer: Fire Authorities in England and Wales

29 January 2010

Dear Sir/ Madam

WITHDRAWAL OF STRUCTURAL DESIGN STANDARDS (BRITISH STANDARDS) AND UPDATING APPROVED DOCUMENTS A AND C

I am writing to inform you about the introduction of a suite of new British Standards (BSs) for structural design, based on European Standards often called the Eurocodes, and the associated withdrawal by British Standards Institution in March 2010 of conflicting BS design standards, some of which are referenced in the Building Regulations Approved Documents, particularly Approved Document A (Structure).

The structural Eurocodes are a set of standardised European design standards which provide a common approach to structural design across the EU. They are intended to remove potential barriers to trade that exist when countries have different design standards.

There are ten Eurocodes made up of 58 Parts that are being adopted in all EU Member States in 2010. Each Part is implemented nationally with a National Annex. These Annexes contain information on Nationally Determined Parameters to be used for the design of building and civil engineering works to be constructed in the country concerned, addressing for example particular national safety parameters, geographical and climatic conditions, and procedures.

Under an agreement between the European standardisation bodies, the national standards bodies including BSI for the UK will withdraw any conflicting national structural design standards by 31 March 2010.

In the UK BSI has published the Eurocode (EN) standards as British Standards (BS ENs). BSI has also published the National Annexes. The ten, with the number of Parts in each, are:

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|---|----------|
| • BS EN 1990 Basis of Structural Design | 1 Part |
| • BS EN 1991 Actions on Structures | 10 Parts |
| • BS EN 1992 Design of Concrete Structures | 4 Parts |
| • BS EN 1993 Design of Steel Structures | 20 Parts |
| • BS EN 1994 Design of Composite Structures | 3 Parts |
| • BS EN 1995 Design of Timber Structures | 3 Parts |
| • BS EN 1996 Design of Masonry Structures | 4 Parts |
| • BS EN 1997 Geotechnical Design | 2 Parts |
| • BS EN 1998 Design of Structures for Earthquake Resistance | 6 Parts |
| • BS EN 1999 Design of Aluminium Structures | 5 Parts |

ANNEX A provides a list of the new BS EN structural design standards, and the corresponding British Standards which will be withdrawn by BSI on 31 March 2010.

Further information on the new BS ENs is available from BSI at:

<http://www.bsigroup.com/en/Standards-and-Publications/Industry-Sectors/Eurocodes/>

WHAT THIS MEANS FOR BUILDING CONTROL BODIES (BCBs)

When assessing compliance with the Building Regulations, BCBs should continue to consider the appropriate use of relevant standards on a case by case basis. This may include the use of the new BS ENs, which formally become the new national standards in April 2010 reflecting the changes made by the standards organisations. There is no need to wait until April 2010.

The British Standards to be withdrawn on 31 March are and will remain available from BSI. But BSI committees have already stopped updating those British Standards, and so they may not necessarily be suitable for aspects of structural design in the medium and long term.

BCBs will need to be aware of the risk of designs inappropriately mixing new design standards based on the BS ENs and withdrawn BS design standards.

REFERENCES IN APPROVED DOCUMENTS

Building regulations are made for specific purposes, including the health and safety, welfare and convenience of people in and around buildings, and energy conservation. The majority of the functional requirements of these regulations are set out in Parts A to P in Schedule 1 to the Building Regulations 2000. The Approved Documents which provide guidance on compliance with those requirements are named to correspond to the appropriate Part, e.g. Approved Document A provides guidance on compliance with Part A. Standards and technical approvals may be appropriate guidance as to compliance with the functional requirements to the extent that the content is related to those requirements. However standards and technical approvals may also address aspects of performance such as serviceability, and other matters which are not covered by the Building Regulations.

When an Approved Document makes reference to a named standard, the relevant version of the standard is the one listed at the end of the publication. However, if this version has been revised or updated by the issuing standards body, the new version may be used as a source of guidance provided it continues to address the relevant requirements of the Regulations.

UPDATING APPROVED DOCUMENTS

In September 2009 we announced a new approach for updating the Building Regulations and associated guidance. This included a commitment that, as far as possible, we would amend the Building Regulations no more than once every three years, and amend Parts normally no more than once every six years.

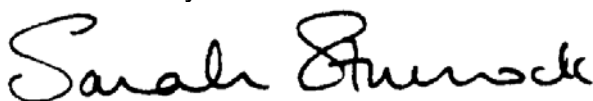
As part of the review considering possible amendments for 2010, we have been evaluating Parts A (Structure) and C (Site preparation and resistance to contaminants and moisture) and their Approved Documents. We are looking at these Parts together as they target similar building elements. The evaluation has identified a number of issues that Parts A and C will need to reflect, but the full implications of these issues will not become clear until later this year at the earliest, i.e. too late to inform changes in 2010. We have concluded, therefore, that we should continue our work reviewing Parts A and C, with a view to proposing appropriate changes for the next periodic amendment in 2013.

We expect to be updating at that time the references in the Approved Documents that relate to structural design standards. However, we would not expect this rescheduling to affect or deter the take up of the new national standards (BS ENs), based on Eurocodes. We continue to work with industry including professional institutions and representative bodies, to assist as they prepare for this change to the British Standards.

ENQUIRIES

E-mail enquiries should be sent to enquiries.br@communities.gsi.gov.uk.

Yours faithfully



Sarah Sturrock
Deputy Director of Sustainable Buildings

ANNEX A

List of British Standard BS EN codes for structural design and the corresponding British Standards to be withdrawn

Eurocode : Basis of structural design	Corresponding BS
BS EN 1990:2002 Basis of structural design	–
Note: Some sections of EN 1990 correspond with BS 5268-1, BS 5628-1, BS 5950-1 and BS 8110-1 and 2. BS 5400-1 which is not referred to in Approved Document A (Structure) also has some content that corresponds to EN 1990.	

Eurocode 1: Actions on structures	Corresponding BS
BS EN 1991-1-1:2002 Actions on structures. General actions. Densities, self-weight, imposed loads for buildings	BS 6399-1, BS 6399-3, BS 648*
BS EN 1991-1-2:2002 Actions on structures. General actions. Actions on structures exposed to fire	–
BS EN 1991-1-3:2003 Actions on structures. General actions. Snow loads	BS 6399-3
BS EN 1991-1-4:2005 Actions on structures. General actions. Wind actions	BS 6399-2, BS 5400-2*
BS EN 1991-1-5:2003 Actions on structures. General actions. Thermal actions Note: Some sections of EN 1991-1-5 relating to bridges correspond to BS 5400-2*.	–
BS EN 1991-1-6:2005 Actions on structures. General actions. Actions during execution	–
BS EN 1991-1-7:2006 Actions on structures. General actions. Accidental actions	Minimal guidance in BS 6399-1. Some sections of EN 1991-1-7 correspond with BS 6399-1, BS 5268-1, BS 5628-1, BS 5950-1, BS 8110-1 and 2 and BS 5400-3*.
BS EN 1991-2:2003 Actions on structures. Traffic loads on bridges	BS 5400-2*

BS EN 1991-3:2006 Actions on structures. Actions induced by cranes and machines	—
BS EN 1991-4:2006 Actions on structures. Silos and tanks	—

Eurocode 2: Design of concrete structures	Corresponding BS
BS EN 1992-1-1:2004 Design of concrete structures. General rules and rules for buildings	BS 8110-1, BS 8110-2, BS 8110-3
BS EN 1992-1-2:2004 Design of concrete structures. General rules. Structural fire design	BS 8110-1, BS 8110-2
BS EN 1992-2:2005 Design of concrete structures. Concrete bridges. Design and detailing rules	BS 5400-4*, BS 5400-7*, BS 5400-8*
BS EN 1992-3:2006 Design of concrete structures. Liquid retaining and containing structures	BS 8007*

Eurocode 3: Design of steel structures	Corresponding BS
BS EN 1993-1-1:2005 Design of steel structures. General rules and rules for buildings	BS 5950-1, BS 5400-3*
BS EN 1993-1-2:2005 Design of steel structures. General rules. Structural fire design	BS 5950-8*
BS EN 1993-1-3:2006 Design of steel structures. General rules. Supplementary rules for cold-formed members and sheeting	BS 5950-5, BS 5950-6*, BS 5950-9*
BS EN 1993-1-4:2006 Design of steel structures. General rules. Supplementary rules for stainless steels	—
BS EN 1993-1-5:2006 Design of steel structures. Plated structural elements	BS 5950-1, BS 5400-3*
BS EN 1993-1-6:2007 Design of steel structures. General. Strength and stability of shell structures	—
BS EN 1993-1-7:2007 Design of steel structures. Plated structures subject to out of plane loading	—

BS EN 1993-1-8:2005 Design of steel structures. Design of joints	BS 5950-1. BS 4604-1*, BS 4604-2*, BS 5400-3*
BS EN 1993-1-9:2005 Design of steel structures. Fatigue	BS 5950-1, BS 5400-10*
BS EN 1993-1-10:2005 Design of steel structures. Material toughness and through-thickness properties	BS 5950-1, BS 5400-3*
BS EN 1993-1-11:2006 Design of steel structures. Design of structures with tension components	—
BS EN 1993-1-12:2007 Design of steel structures. Additional rules for the extension of EN 1993 to steel grades S700	BS 5950-1
BS EN 1993-2:2006 Design of steel structures. Steel bridges	BS 5400-3*
BS EN 1993-3-1:2007 Design of steel structures. Towers, masts and chimneys. Towers and masts	BS 8100-1*, BS 8100-2*, BS 8100-3*, BS 8100-4*
BS EN 1993-3-2:2008 Design of steel structures. Towers, masts and chimneys. Chimneys	BS 4076*
BS EN 1993-4-1:2007 Design of steel structures. Silos, tanks and pipelines. Silos	—
BS EN 1993-4-2:2007 Design of steel structures. Silos, tanks and pipelines. Tanks	—
BS EN 1993-4-3:2007 Design of steel structures. Silos, tanks and pipelines. Pipelines	—
BS EN 1993-5:2007 Design of steel structures. Piling	BS 5950-1
BS EN 1993-6:2007 Design of steel structures. Crane supporting structures	BS 5950-1, BS 2853*

Eurocode 4: Design of composite steel and concrete structures	Corresponding BS
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BS EN 1994-1-1:2004 Design of composite steel and concrete structures. General rules and rules for buildings	BS 5950-3.1, BS 5950-4
BS EN 1994-1-2:2005 Design of composite steel and concrete structures. General rules. Structural fire design	BS 5950-8*
BS EN 1994-2:2005 Design of composite steel and concrete structures. General rules and rules for bridges	BS 5400-5*

Eurocode 5: Design of timber structures	Corresponding BS
BS EN 1995-1-1:2004 Design of timber structures. General. Common rules and rules for buildings	BS 5268-2, BS 5268-3, BS 5268-6.1*, BS 5268-6.2*, BS 5268-7.1*, BS 5268-7.2*, BS 5268-7.3*, BS 5268-7.4*, BS 5268-7.5*, BS 5268-7.6*, BS 5268-7.7*
BS EN 1995-1-2:2004 Design of timber structures. General. Structural fire design	BS 5268-4.1*, BS 5268-4.2*
BS EN 1995-2:2004 Design of timber structures. Bridges	—

Eurocode 6: Design of masonry structures	Corresponding BS
BS EN 1996-1-1:2005 Design of masonry structures. General rules for reinforced and unreinforced masonry structures	BS 5628-1, BS 5628-2
BS EN 1996-1-2:2005 Design of masonry structures. Structural fire design	BS 5628-3
BS EN 1996-2:2006 Design of masonry structures. Design considerations, selection of materials and execution of masonry	BS 5628-3
BS EN 1996-3:2006 Design of masonry structures. Simplified calculation methods for unreinforced masonry structures	—

Eurocode 7: Geotechnical design	Corresponding BS
BS EN 1997-1:2004 Geotechnical design. General rules	BS 8002, BS 8004, BS 8006*, BS 8081*

BS EN 1997-2:2007 Geotechnical design. Ground investigation and testing	–
Eurocode 8: Design of structures for earthquake resistance	Corresponding BS
BS EN 1998-1:2004 Design of structures for earthquake resistance. General rules. Seismic actions for buildings	–
BS EN 1998-2:2005+Amendment 1:2009 Design of structures for earthquake resistance. Bridges	–
BS EN 1998-3:2005 Design of structures for earthquake resistance. Assessment and retrofitting of buildings	–
BS EN 1998-4:2006 Design of structures for earthquake resistance. Silos tanks and pipelines	–
BS EN 1998-5:2004 Design of structures for earthquake resistance. Foundations, retaining structures and geotechnical aspects	–
BS EN 1998-6:2005 Design of structures for earthquake resistance. Towers masts and chimneys	–

Eurocode 9: Design of aluminum structures	Corresponding BS
BS EN 1999-1-1:2007 Design of aluminium structures. General rules	BS 8118-1, BS 8118-2
BS EN 1999-1-2:2007 Design of aluminium structures. General. Structural fire design	–
BS EN 1999-1-3:2007 Design of aluminium structures. Additional rules for structures susceptible to fatigue	BS 8118-1
BS EN 1999-1-4:2007 Design of aluminium structures. Supplementary rules for trapezoidal sheeting	–
BS EN 1999-1-5:2007 Design of aluminium structures. Supplementary rules for shell structures	BS 8118-1

Note:

* These standards are not directly, or are not currently referenced in Approved Document A (Structure). Some are cross-referenced in the Standards referred to. Some may not be applicable to Approved Document A (Structure) such as BS 5400 for bridges, or are applicable to other Approved Document parts.