



INSIGHT

4th Quarter 2009

Quarterly CAB Technical Report

Patrick England - Personal introduction

The first 3 months working with CAB and for you the Members, has been hectic at times, informative, sometimes challenging, often intriguing and also enjoyable! My involvement in both UK and European Forums & Committees has enabled me to appreciate the importance of CAB's involvement, and to realise the benefits of our input and influence, as it is in these arenas that the future requirements for our industry are being determined and if we don't maintain our involvement we cannot have an input or influence. I have appreciated the help and support given to me by the CAB Team, our Members and other Trade Associations who provide a wealth of information. I have found that a chance comment in a meeting can immediately have impact in other aspects of our work and it is this cross-fertilisation of information that forms another essential aspect of building an overall understanding of the arena in which we operate, which enables us to be more effective. Whilst some of those involved still remember me from the early 90's, I have made many new contacts and I believe, established effective working relationships wherever I go, despite my reputation for saying what I think.

Over the next year I want to get round to see as many Members as I can as it is essential that CAB better understand first-hand, what you the Members want from CAB in the future.

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1. Approved Document L (energy conservation) and F (ventilation) Consultation

My first 'key task' was, with the assistance of Martin Ford, and latterly of Simon Jones, the Technical Committee Chairman, to prepare for, and compile, the CAB response to the **Proposals for amending Part L (ADL) and Part F (ADF) of the Building Regulations.**

This we did with consultation not only within the CAB Membership but also with the SWA (Steel Window Association), BFRC (British Fenestration Rating Council), FITP Group (Fenestration Industry Thermal Properties),GGF (Glass & Glazing Federation) and the CPA (Construction Products Association).

The main issues were dealt with in our responses to the Consultation Document, as follows:-

Part L

- The "Flat" approach for determining TER (Target Emission Rate) for new dwellings, and the "Aggregate" approach for non-domestic buildings, were preferred
- We supported the proposal for **Accredited Construction Details (ACD's) BUT not for 2010** due to the scale and complexity of developing & introducing such a scheme by that date.
This has stimulated the reintroduction of the CAB Interfaces Sub-committee which met on 14 December 2009 to formulate proposals which we will push for incorporation in future ADL revisions.
- We disagreed with a 10% margin being introduced to calculated psi-values until an ACD scheme was established, as this is not done with other software.
- We commented that there was **significant room for improvement of both SAP and SBEM.**
- Exemption for conservatories less than 30 m² should be removed but should not be notifiable due to the impracticality of implementing and effective scheme.

ADL1B / 2B - Existing

- The proposed window U value of 1.5 is a disincentive to renovate, a more realistic U value is 1.8 (as proposed for doors)
- Disagreed with WER (Window Energy Ratings) being the only means of demonstrating compliance for conservatories.

ADL1B - Existing - dwellings

- Disagreed with WER band C as being only acceptance criteria for replacement windows, proposed that maxm $U_w = 1.8$ and centre-pane $U_g = 1.2$ be allowable alternatives.
- Commented that there were significant issues with SBEM that needed to be sorted out .

ADL2B - Existing - Non-dwellings

- Disagreed with proposed U_w of 1.5 for replacement windows as it represented reduction of $1/3^{\text{rd}}$ on the 2006 level which exceeds the policy objective of 25%. Recommended a U_w of 1.8 as being reasonable and proportionate. The retention of the centre-pane value was welcomed.

SAP and SBEM software

- Agreed with both a 'locked' (Product specific) and 'unlocked' (Industry design/development tool) core calculation engine for specific applications.

Compliance output report

- Commented that the notional building should be presented in such a way as to allow direct comparison with the design to enable the differences to be identified.

Part F

- Disagreed with air permeability equal or tighter than $5 \text{ m}^3/(\text{h.m}^2) @ 50 \text{ Pa}$.
- Commented that no modifications were necessary to the airtightness requirement for buildings-other than dwellings.

We now await the report from CLG (Communities and Local Government) on the responses received due imminently. Then follows publication in April 2010, and implementation in October 2010.

2. SAP / SBEM

Consultation versions of SAP and SBEM were also released which allowed members to assess the effect of the proposed changes. The response was positive in some areas but major concerns were expressed over the detailed proposals particularly where SAP and more so SBEM were involved. **CAB TC Members have been asked to provide feedback on the suitability of these software packages**

3. CE Marking

As of the 1st February 2010 under the Construction Products Directive (CPD) the coexistence between BS6375 and BS EN 14351 will finish. All products tested to BS 6375 will have the same classification as specified in BS EN 14351, as both refer to the same European Test and Classification Standards, but manufacturers will require a Factory Production Control (FPC) System .

Many organisations think that CE marking will become mandatory, this is not the case for products sold within the UK, this will only be required once the Construction Products Directive is replaced by the Construction Products Regulations.

Kevin Frewin of BSi was asked to provide the TC (Technical Committee) Members with a clear understanding of the requirements for, and means of achievement / costs of CE marking, at the meeting on the 24th September. Following his presentation, further questions were raised, initially by the hardware suppliers regarding safety hardware, and subsequently by other Members regarding the cascading of test results down the supply chain. **Following some prompting BSi have taken the initiative and a cross Trade Association meeting, to which all CAB TC members were invited, was held on the 2nd December at Hoppe (UK) Ltd.**

4. Construction Products Directive (CPD) / Construction Products Regulations (CPR)

The proposal for the new Construction Products Directive (COM (2008) 311 final) had its First Reading in the European Parliament in April. It has now gone to the Council of Ministers who have unlimited time to work on their response. A final decision from the council is not now expected until the new year when the Spanish hold the Presidency. As a result CE marking will not happen until 2012/2013 at the earliest.

5. SBD

We arranged a meeting with Jon Cole of SBD and Kevin Frewin of BSi, together with Mike Tanner, Chairman of the CAB SBD working group. The meeting took place on the 16th November at BSi. **In preparation for the meeting TC Members were asked to provide feedback on the problems caused by the lack of a Commercial SBD scheme.**

At that meeting ALL the CAB Member responses were provided to Jon Cole. We were then shown extracts from the Draft SBD Commercial Scheme Documents for Schools, and for Industrial and Warehouse Developments, copies of which we have just received for comment. **These Scheme requirements are due to be finalised and published in January 2010, we will provide details to all TC Members as soon as they are available.**

One aspect that will require Members action is the inclusion of curtain walling but only in as much as it must have a **secure glazing retention system** (This needs some careful design consideration), and laminated glass.

The position of EN 1627 - 1630 was also discussed and BSi advised that the document had not yet been ratified by CEN as the UK, France, and Spain, had objected to it and were to meet with CEN in the very near future. The requirement to meet these EN's in the light of the Public Procurement Directive, which particularly impacts on school projects, is being discussed by SBD and the Government, again we await the outcome of that.

To assist our Members to understand the implications of the SBD Commercial Scheme requirements **Mick Reynolds of SBD will be presenting these schemes, and answering any questions, at our next Technical Conference on the 13th May 2010, if you have any questions about SBD for Commercial projects you can't afford to miss this!!!**

6. FAECF (Federation of the European Window and Curtain Wall Manufacturers' Associations)

I attended the FAECF Technical Committee, and Management Committee, on the 8th and 9th October 2009 where CAB was asked to give guidance on the Green Guide and BREEAM as the TC members were becoming increasingly concerned by its infiltration into Europe. Whilst carrying out an investigation into BREEAM and its requirements, in preparation I also counselled the TC Members on their encounters with BREEAM.

7. Sustainability

a. BREEAM (BRE Environmental Assessment Method)

The most worrying aspect, apart from the use of the Green Guide Methodology, was the objective that BREEAM was **"To set criteria and standards surpassing those required by regulations"**

From my involvement in industry discussions with Government, on the energy reduction targets for 2010, 2013 and 2016 it was clear that products in all materials would be unable to achieve the energy reduction targets in isolation, and that infrastructures and renewable energy sources would be required. Therefore, it will become increasingly hard to promote achievement of performance 'better than' regulations.

Another point of interest is that compliance with SBD will enable projects to earn more BREEAM "points".

b. BRE Green Guide

Following my involvement in CPA, CWCT, and FAECF, Technical Committee meetings there is a groundswell of opinion that it is essential for the industry to be provided with specific details of how the Green Guide ratings are

achieved. This would turn the Green Guide into an improvement tool as well as an assessment tool and all materials could establish their ratings and identify areas for improvement.

c. Code for Sustainable Homes/ Non Domestic Buildings

The latest version of the Code for Sustainable Homes was released in May 2009. CLG is working on a similar Code for non-domestic buildings, which aims at ensuring all new non-domestic buildings are zero carbon by 2019. A revised Code is now expected to be consulted on, following analysis of the Part L consultation. It is essential that a consistent approach is achieved within both the Code and Part L to low and zero carbon buildings.

d. Green Public Procurement

Green Public Procurement in Europe, continues to exercise the minds of our colleagues in DEFRA (Department for Environment, Food and Rural Affairs), the CPA and the EAA (European Aluminium Association) in Brussels. The consultant's first policy draft has been significantly amended not least due to its reliance on Asiatic and North American data (!) but there is still education to be done. However, like it or not, this 'green' approach to material and product sourcing will become a standard part of public procurement in the not too distant future so ignore it at your peril.

Hopefully we shall see the EAA's Environmental Product Declaration (EPD) for aluminium windows software soon. This is likely to be the way products are evaluated for their environmental credentials in the next few years, superseding the artificially crafted horizontal comparison methods represented by the Green Guide.

e. Responsible Sourcing

BS 8902 Responsible sourcing sector certification schemes for construction products has now been issued.

f. Windows Roadmaps

Developing an action plan for window systems is one of a number of "roadmap" projects coordinated by DEFRA, in collaboration with industry, and is a contribution to delivering the targets identified within the joint government and industry Strategy for Sustainable Construction launched in July 2008. Government and industry stakeholders from across the window industry and supply chain attend regular steering group meetings and contribute to this process.

The windows roadmap considers each stage of the product lifecycle for window systems: from the extraction of raw material; production of the window system; retail and distribution; use and maintenance to end of life. For each of these stages in the lifecycle an understanding is developed as to:

- The environmental impacts of window systems
- The current activities and policies that may reduce these impacts
- Possible gaps, and potential future work for concerted action

An evidence study report has already been produced to capture the above. Currently, this information is being consolidated into an agreed action plan for window systems, in consultation with a wide range of industry stakeholders including CAB. Once agreed, this action plan will represent a forward strategy for further improving the sustainability of windows.

8. EEP (Energy Efficiency Partnership) – GSG (Glazing Strategy Group)

CAB is working with this group developing and implementing strategies to improve the understanding and use of domestic glazing products at all levels from the consumer through to Government.

9. BFRC

Following the BFRC Advisory Committee meeting, 7 October 2009, we were sent details of their new Door Energy Rating (DER) scheme proposals, for comment. After discussions with Dr Gary Morgan we pointed out that the

energy rating scheme should be a means of assessing one doors energy rating against another, immaterial of its location in the dwelling. Removing the solar gain factor from the calculations due to the 'possibility' of solar shading would be wrong, and inconsistent with the Window Energy Rating (WER) scheme. We raised further points about specimen sizes, categories, and construction. We stated that the specimen sizes should be as specified in the European Standards (a fact that is currently preventing BFRC rating methods satisfying CE marking requirements) otherwise it would mean two sets of calculations for every product when CE marking becomes mandatory.

10. Scotland

Changes to legislation and guidance January 2009

From 4 January 2009 energy performance certificates for existing buildings were introduced. These need to be provided when buildings are sold or rented out and for large public buildings.

Technical Handbooks 2009 - The 2009 edition of the Technical Handbooks are unchanged from the 2008 editions, other than amendment to Section 0 (0.5 and 0.17), Section 6 (6.0 and 6.9) and Annex A (defined terms), which have been introduced to assist in implementation of the Energy Performance of Buildings Directive.

Revisions to both Domestic and Non-Domestic Technical Handbooks

- Section 0 – Schedule 3 and guidance to Regulation 17
- Section 6 – Standard 6.9 and associated guidance
- Appendix A – Definition of energy performance certificate

Changes to legislation and guidance for May 2009

Revisions to Technical Handbooks

- Section 0 – Schedule 1, Schedule 3 and guidance, Dom & Non-Dom
- Section 2 – Guidance to Standards 2.0, 2.5, 2.6, 2.7, 2.9, 2.12, 2.14, Annexes, Domestic & Non-Domestic
- Section 3 – Guidance to Standard 3.2 – (radon maps) and Standard 3.6 – (paved areas less than 200 sq.m), Domestic & Non-Domestic
- Section 4 – Guidance to Standard 4.5 – (electrical socket outlets), Domestic & Non-Domestic
- Section 6 – Guidance to Standard 6.1 – (thermal bridges table), Non-Dom

Further guidance on the implications to be compiled and distributed to the Scottish TC Members before Christmas.

Scottish Regulations – Environmental Assessment

The Scottish government has published an environmental assessment on all the proposed changes in the Scottish building standards for 2010. These include changes to Section 1 - Structure, Section 2 - Fire and Section 6 – Energy. It is not a re-consultation on the proposed changes but a report on their environmental impact. The report is available at www.sbsa.gov.uk/pdfs/Environmental_Report_Consultation2010.pdf and **the consultation closes on 16 December.**

11. CAB Committee involvement

Our involvement in these UK and European committees keeps us informed on how current issues are developing, and on those which will, in the future, impact on our industry. Our contributions in these committees enable us to have some influence over the outcomes of these issues at the soonest opportunity and to keep the Members advised when action is required, and to support them in whatever way we can, to ensure a secure future for the industry.

EFP (Energy Efficiency Partnership) - **GSG** (Glazing Strategy Group)

BFRC (British Fenestration Rating Council) - **Advisory Group**

CWCT - Technical Committee

CPA (Construction Products Association) - **Technical Committee**

FAECF (Federation of the European Window and Curtain Wall Manufacturers' Associations) **Technical Committee**

FAECF Management Committee

(Future) **CEPMC** (Council of European Producers of Materials for Construction) - **Technical Committee**

FITP Group (Fenestration Industry Thermal Properties)

BSi (CEN TC33 Working Group shadow committees)

- B/538/1 Windows
- B/538/2 Doors
- B/538/2/04 Fire Resistant Assemblies for Doors and Windows
- B/538/2/P1 Security of Doors and Windows
- B/538/2/P2 Performance of doors and Windows
- B/538/4 Building Hardware represented by Andy Stolworthy, Adams Rite
- B/538/6 Curtain Walling

12. Consultation Documents sent out to TC Members requesting feedback

- Benefits and problems caused by the BREEAM scheme, with any practical experiences
- Limitations of the current SBEM / SAP software programmes
- The Energy Savings Trust Project Guide document
- Zero Carbon Homes & Non-Domestic Buildings

13. Guidance Notes (GN's) and Setting the Standards (StS's) accessible on CAB website

- **CGN 1** Security Testing of Windows and Doors
 - **CGN 2** Panic / Emergency Exit Device Standards
 - **CGN 3** ADM Access to and Use of Buildings
 - **CGN 4** Weather Testing of Windows and Doorsets
 - **CGN 5** Smoke and Heat Control Systems
 - **CGN 6** Safety Glass and the changes to BS 6262-4
 - **CGN 7** Structural Sealant Glazing
 - **CGN 13** Weather Testing of Curtain Walling
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- **StS 1** Patent Glazing – A guide to the specification and design
 - **StS 2** Aluminium Windows – A guide to the specification and design
 - **StS 5** Aluminium Doors and Entrance Screens – A guide to specification and design
 - **StS 7** A guide to the assessment of the thermal performance of Aluminium Fenestration Products

14. Proposed Guidance Notes for 2010

- Selection and use of Fastenings
- Interface designs
- Visual Standards for applied sealants

15. Propose Setting the Standard for 2010

- Update StS 7 A guide to the thermal assessment of aluminium fenestration products (Following publication of Document L)
- Update StS 2 When the revision to BS EN 14351 has been confirmed

16. Standards

- The standard for 'Pedestrian doorsets, industrial, commercial, garage doors and windows – Product standard, performance characteristics - Fire Resistance and or Smoke Control characteristics is prEN 16034
- **BS 8529** Composite Doorsets Domestic external doorsets has now been completed the comments assessed and is due to be published soon.

- **BS EN 14351-1** amendment to 2006 A copy has been sent to the Technical Committee for comment. Response to BSI is due 30th November, this has been extended to the 14th December
- **BS 4873** will need to be updated with the introduction of the Structural Eurocodes in March 2010
- **BS EN 16005** Powered Pedestrian Doors – Safety in use of power pedestrian doors – Requirements and test methods is currently out for public comment responses are due by 22nd February

17. Diary Dates

2010

18 February - CAB Scottish Technical Committee

2 – 4 March - Ecobuild @ Earls Court, London

18 March - CAB Technical Committee & Regional Members Meeting @ Assembly Rooms/Roman Baths, Bath

13 May - CAB Technical Conference @ Stratford Manor Hotel, Warks

9 July - CAB AGM @ Carden Park Hotel, Cheshire

Late September - CAB Technical Committee & Regional Members Meeting – venue tba

17-20 October - CAB Aluminium Village, Interbuild, NEC

Mid/Late November - CAB Regional Members event – venue tba

**For further information on any of the above contact the CAB Office on:
enquiries@c-a-b.org.uk or
01453 828851**

REGULATIONS & STANDARDS

1. You can view and download the Approved Documents (AD) to the Building Regulations for **FREE** at www.planningportal.gov.uk
2. Similarly the Scottish Regulations are freely available on the Scottish Building Standards website www.sbsa.gov.uk and the Northern Ireland ones at www.dfpni.gov.uk.
3. The latest Standards & Regulations list is attached
4. The Acronym List is to be reissued annually, and changes reported in *INSIGHT* as they arise in each quarter.