



31st August 2010

Ms Sarah Sturrock,
Department of Communities and Local Government,
Sustainable Buildings Zone 5/G10
Eland House.
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Chief Executive & Secretary
Stephen Matthews

Dear Ms Sturrock,

Ideas for the Future development of the Building Regulations

This letter is CIBSE's response to your letter sent to key stakeholders on 29th July on behalf of Andrew Stunnell, the Minister responsible for Building Regulations at the Department.

I attach a paper setting out CIBSE's understanding of the current policy assumptions in which the Regulations are expected to develop, along with our proposals to further develop the Regulations, in particular to address the need for increased levels of practical compliance, particularly related to the energy performance of our buildings. This has been prepared under the supervision of our policy and consultations committee.

The paper also summarises the responses of over 190 individual CIBSE members who responded to the Building Regulations survey which we ran online during August in response to your letter. We hope that the paper will be of some help in improving the Building Regulations in the future, and we look forward to working with the Department to that end.

We recently received email correspondence from Gerald McInerney asking about organising events in the next two months, and we will respond shortly to Gerald outlining our plans for such meetings, and inviting participation by your Division in these events.

If we can assist you any further in this exercise, or provide any additional information on the proposals contained in this response, please do not hesitate to contact me.

Yours sincerely,

Dr Hywel Davies
CIBSE Technical Director

Ideas for the Future development of the Building Regulations

Summary

This paper has been prepared by the Chartered Institution of Building Services Engineers (CIBSE) in response to a letter from the Department of Communities and Local Government to 'key external stakeholders' on 29th July, on behalf of Andrew Stunnell, the Minister responsible for Building Regulations at the Department.

The paper sets out CIBSE's understanding of the current policy assumptions in which the Building Regulations are expected to develop, along with CIBSE's proposals to further develop the Regulations. It particularly addresses the need to increase levels of practical compliance, particularly related to the energy performance of buildings.

The paper proposes that the successful model for ensuring the compliance of structural calculations with the requirements of Part A of the Regulations be used as the basis of a similar scheme for Part L, to reduce the technical and cost burdens on building control officers, and transfer them to those with the technical skills to assess compliance with that Part of the Regulations. This also has the potential to reduce the administrative burden on the Department by taking responsibility for the accreditation of suitably qualified persons and Competent Persons for these tasks.

In addition, we identify potential opportunities to rationalise and streamline the energy efficiency elements of the Building Regulations and the Energy Performance of Buildings Regulations, which are currently separate. Such a rationalisation offers the Department scope to reduce the regulatory burden of these Regulations, and economies in the implementation of the recast Energy Performance of Buildings Directive, which has to be undertaken in parallel with the next cycle of revisions to Part L of the Building Regulations. There is significant scope to combine the technical development, consultation, legal drafting and compliance arrangements for these two activities. We therefore believe that the Department should seek to implement the recast entirely through revisions to the Building Regulations, absorbing the Energy Performance of Buildings Regulations.

The paper also summarises individual responses from over 190 CIBSE members who replied to the online survey which we ran during August seeking responses to this letter. The paper has been prepared under the supervision of the Policy and Consultations Committee of the Institution. A short description of the Institution is attached as Annex A to this paper.

Introduction

In responding to the request for ideas about future changes to the Building Regulations, CIBSE has made the following assumptions about government policy, based on government announcements and the coalition programme of work.

We assume that the commitment to be "the greenest government ever" covers all aspects of policy, not just the environmental performance of government departments and its estate. Building Regulations have a significant, and growing, role to play in achieving government policy objectives in relation to both carbon emissions and climate change, and to energy supply and security issues. We therefore assume that Building Regulations are seen as central to the achievement of these policy objectives.

We have assumed that the urgency with which the Housing Minister is seeking to finalise the further definition of zero carbon homes is evidence of a commitment to the previously stated “zero carbon” targets for dwellings in 2016, public buildings in 2018 and other non domestic buildings in 2019.

We have assumed that the government is committed to meet its obligation to adopt measures to implement the recast of the Energy Performance of Buildings Directive (EPBD) by late 2012. In particular, we note the requirement in Article 27 of the recast Directive relating to penalties, which must be “effective, proportionate and dissuasive”. Since these penalties apply to all aspects of the Directive, and since the requirements for minimum energy standards and calculation of emissions are implemented through the Building Regulations, we have assumed that the penalties for non compliance with the Building Regulations will need to be reviewed as part of the implementation of the recast Directive.

We have assumed that the government’s wish to streamline regulations and reduce the costs of government apply to the Building and Energy Performance Regulations. Given the links between the Building and Energy Performance Regulations and the closely aligned timescales for the next cycle of revisions to Building Regulations and implementation of the recast, we believe that government should seriously consider combining the Regulations and bringing together the teams responsible for them at CLG. This also has implications for the accreditation of energy assessors. These proposals are explained in more detail below.

Given the specific requirements within the recast for adoption of measures to achieve “nearly zero” carbon homes by 2020, we anticipate that the government will point to the current trajectory towards zero carbon as evidence that this requirement has already been addressed. CIBSE would be very grateful if the Department could advise us if we are significantly incorrect in any of these assumptions, and tell us what the current policy is if our understanding is incorrect.

The rate of revisions to Building Regulations

CIBSE is conscious, and responses from our members to this informal consultation reinforce this awareness, that Building Regulations are now in a period of unprecedented revision. In particular, we are aware of the pressures on the supply side that have been created by recent amendments to the Regulations, and CIBSE realises that there are further significant revisions due to come into force in the next month. We are also aware of the policy on the timing and frequency of changes which is set out in the “Future of Building Control” paper, and understand that this will reduce the frequency of revisions to some elements of the Building Regulations. However, for Part L and F, in view of the current direction of zero carbon policy and the associated timescales, we understand that there is no time to lose, and that revisions will at least have to be on a triennial cycle if the overall zero carbon policy objectives are to be met.

Whilst we recognise the overall requirements for these revisions, members have expressed concern that it takes about three years to fully implement amendments to the Regulations, and that therefore, in practice, revisions at this frequency are very hard to manage. Whilst some of our members have argued that the six year cycle should therefore apply to Parts L and F, we realise that the recast of the EPBD must be implemented by late 2012. There is therefore an opportunity to implement the recast in tandem with the next cycle of changes to Parts L and F. CIBSE believes that there should be an early commitment by the Department to undertake these two tasks together, with common technical analysis of the requirements, consultation,

and legal advice. We also believe that the Department's legal advisors should be asked to consider whether the recast EPBD can be wholly implemented through Building Regulations as a matter of urgency. Combining these two activities offers the Department a reduction in legislative and administrative burdens, and would offer the industry a significant reduction in the costs of participating in the development of the revisions and preparing for them.

It is clear to us from the responses we have received from our members that there is limited awareness amongst practitioners at present of the Future of Building Control timescales. We recommend that further work is needed to raise awareness amongst designers about the new three year cycles. We would be happy to arrange for an article on this to be published in CIBSE Journal to help address this, written by a senior official or Minister, if the Department would find that helpful.

Compliance

We are also aware that the Department has been seeking to address compliance issues for some time now, at least since the National Audit Office report in July 2008 which highlighted concerns about compliance in relation to energy efficiency policy and its potential impact on the achievement of carbon emissions reductions attributed to the introduction of new Building Regulations. We understand that some of the revisions to Part L that are shortly to come into force are intended to improve compliance levels. As an Institution we are fully committed to do all we can to support these, and we want them to be successful.

This response contains evidence of levels of actual compliance with existing requirements which were introduced in previous revisions of the Regulations. This evidence suggests that there is a real compliance problem here. A number of the changes introduced to address low levels of compliance are similar in nature to those addressed in our survey, and so we are concerned that they will suffer from similarly low levels of uptake. We are not aware of substantial resources being applied by the Department to monitor the effectiveness and impact of recent changes to the Regulations as a whole, or Part L in particular, and we believe that the evidence we have collected suggests that there is a significant shortfall in compliance with the 2006 requirements. Whilst we support the measures coming into force in October, and wish them to succeed, we are concerned that the evidence causes concern about how effective these forthcoming measures to enhance compliance will actually be.

CIBSE has long held concerns about the levels of compliance of building works with the energy efficiency elements of the regulations. We believe that there is a need for a significant review of the way in which compliance is assessed, certified and managed, and that the provisions to recognise certain classes of people as competent contained within the Building Act provide the basis for doing this in such a way as to simplify the overall process and to do so without requiring new legislation.

The evidence from our survey suggests that there is a serious lack of activity within the building control process to ensure that buildings comply with the energy efficiency elements of Building Regulations. At the same time, recent government consultations with industry have shown that there is growing concern about the complexity of the Regulations, in particular Part L, and growing difficulty for both designers and building control in understanding what is required. Our own consultation with members in support of this response emphasises the concerns of designers about complexity.

There is also the growing awareness, detailed in the recent Zero Carbon Hub work on the performance gap between design intent and actual site delivery of dwellings, that what is actually built often does not achieve the design targets set by the designer.

Finally, and without wishing to criticise building control professionals, they face unrealistic burdens in terms of detailed compliance checking with Part L. We believe that building control is asked to deliver the impossible, and we should not be surprised when they cannot deliver it. Instead, we need to look at better ways of delivering compliance. This is already a pressing need, as noted above. But the challenge of delivering ‘zero carbon’, or “nearly zero” carbon buildings, in the words of the recast EPBD, will only intensify the pressures on compliance. Since we are required to implement this target under EU law, in addition to domestic policy commitments, it is essential that we review the compliance model.

A way forward

CIBSE believes that there is a way forward to resolve this. It is based on the current model for compliance with Part A of the Regulations, so it does not require any new regulation. Indeed, it builds on the requirements of Regulation 20 of the existing regulations. Further, it seeks to place responsibility on those within the supply chain who have the skills and expertise to best undertake the task, so it is not creating burdens for industry. It also seeks to build on the base of the various competent persons schemes.

Over recent years there has been a growth in competent persons schemes to enable operatives to sign off compliance of specific site work tasks with the Regulations. These cover replacement windows, under Part L, boilers under Part J and electrical installations under Part P. Whilst the schemes for windows caused some concerns initially, CLG reported in 2008 that the introduction of Competent Persons Schemes for electrical safety in dwellings appeared to have increased the level of compliance with that aspect of the Building Regulations. By April 2010 31,000 electrical contractors had registered as installers with the various schemes, and they have certified, on average, about a million electrical installations in homes each year, ensured that they have been installed by those deemed competent to do.

These schemes address quite specific aspects of work carried out under a specific aspect of the Regulations. But there is currently no such scheme for dealing with overall compliance with Part L, in contrast to the position in relation to Part A, or Part P.

At present, structural calculations to demonstrate that buildings satisfy the requirements of Part A of the Building Regulations are carried out by a suitably qualified individual, and are then checked by a second suitably qualified person. Generally in the non domestic market they are chartered engineers, either structural or civil. In some cases the building control officer may undertake the checks, particularly in the domestic market. This arrangement is already covered by the existing regulations, and is a design compliance check.

We therefore propose that a similar arrangement be established to cover compliance with the energy related elements of the regulations. We envisage that this would entail a suitably qualified person taking professional responsibility, and liability, for undertaking compliance checks against Part L and F, and also where appropriate such other parts of the regulations as may be appropriate, for example Part J where there is a boiler installation, or Part B where services have an effect on the fire safety of the works. This person would take responsibility for providing a certificate to building control to the effect that the appropriate parts of the building regulations had been met. In preparing this certificate, they would seek evidence that

specific tasks were certified by a competent person, or that there was a certificate provided by a suitably qualified person covering, for example, air tightness testing or commissioning. The overall Part L certificate would be provided prior to practical completion, and would be a requirement for building control to certify that the building satisfied the Regulations.

The certifying person would need to be accredited as being suitably qualified to undertake this task by one of the relevant professional bodies. They would be able to draw on reports and certificates supplied by those who had undertaken specific compliance checks during construction, such as air tightness testing, carbon emissions calculations, or commissioning activity, so it can absorb the outputs of the competent persons schemes. But they would take overall responsibility for signing off the building as compliant with Part L.

For structural calculations, the system relies on the professional accreditation of those engineers who sign off the calculations, a system which is operated by the relevant professional bodies and is self financing. It is audited by the Engineering Council, and so operates entirely independently of government and without financial input from taxpayers. For Part L related activity, it would be quite possible to establish a parallel regime. Subject to agreement with government about the criteria which define those who are “suitably qualified” persons, then they can be accredited through the relevant professional bodies. We propose that this accreditation body would operate in a similar manner to “Robust Details”, as a partnership between those organisations which accredit those who meet the criteria.

We believe that this arrangement does not require further legislation, as it is enabled by the Sustainable and Secure Buildings Act. It does not therefore create additional burdens, and by reducing the workload on building control it has the potential to streamline the process and reduce the cost burden, which we believe the industry and government would welcome.

The proposal uses existing bodies to provide support, training and accreditation for the scheme, so does not create additional resource demands for CLG, but works with the voluntary and charitable sector to deliver a clearly defined service to government and society.

Given the experience of energy assessment and the evidence produced by the Zero Carbon Hub “performance gap” paper, it would be necessary to operate a system of auditing of the Part L certificates produced. It is proposed that this would be undertaken by the relevant accreditation body or bodies, and would be financed through the accreditation system.

Given the likelihood that many of the Competent Persons schemes outputs would be feeding into the Part L certification process, we believe that it would be appropriate to establish the system in such a way that it could take responsibility, on a self funding basis, for the ongoing accreditation and approval of the competent persons schemes in due course. To facilitate this, we propose that the Department transfers all responsibility for accrediting schemes which deliver any form of certification in relation to buildings to UKAS, in line with the government MoU with UKAS on accreditation requirements for government.

This approach would also be able to cover the work of energy assessors, currently the subject of an entirely separate set of rules and administered independently of Building Regulations. This would bring together the accreditation and quality assurance of all the activities related to energy performance in buildings, and is consistent with the proposal to implement the EPBD recast through the Building Regulations. It offers economies of scale to both government and industry, with associated cost savings.

Simplification

The request has been made that there should be a straightforward procedure for all developments set out step by step and to be in a clearer language, and that Part L be simplified, as currently there are Part L documents coupled with thousands of pages of second and third tier documents. It has been proposed that the new and existing building documents could be included in one document to make it easier for reference, although they were separated in order make the package more usable. We are aware of the work undertaken by NBS on the format and presentation of the Approved Documents, and would welcome an update on the status and output of that project.

There is a particular concern for members working in the small commercial and domestic market. The Regulations are now too complex for many who operate in this sector. Given the low likelihood of detailed compliance checks, and the minimal penalties in the unlikely event of such a check, many operating in this segment of the market give scant attention to Part L. We believe that there is a need for more specific model solutions, on the “robust details” model, that would be “deemed to satisfy” for Part L purposes. This would enable many in this segment to adopt off the shelf Part L solutions. As we move to low or zero carbon buildings the need for this approach is likely to grow.

Transparency

Currently the notional building settings are not explicitly included in the Approved Documents, they are contained in the National Calculation Methodology (NCM) Modelling guide or in the Compliance Guide, which are not always read alongside the main documents. For instance the new 2010 guide requires an air permeability of 5m³/hr.m² for notional buildings, which is not completely clear from the main Approved Document. There is also the example of lighting compliance, where the details are contained in the Compliance Guide, which does not refer to the European Standard approach of using the Lighting Energy Numeric Indicator (LENI) as the metric for all non-domestic buildings. Please refer to the separate Society of Light and Lighting (SLL) response to the consultation which is included in annex 4, and which addresses this point specifically.

There also remains the issue, first raised by CIBSE in a letter to the Department in September 2008, that SBEM is a “black box”, and aspects of the code are not known. We believe that the full SBEM code should be made public as soon as is possible, to enable those who wish to understand it to do so. We believe it would be preferable for the Department to do this voluntarily, before it faces formal requests to do so.

Setting Compliance Criteria

It is deemed that the current Building Regulations offer too many ways to avoid the intent of the regulations and that they need to be made much simpler and have clearer pass/fail criteria. It is suggested that an energy target such as exists for passivhaus, set at 15KWh/m²/annum, would be simple to measure against. This is consistent with the proposals in the Zero Carbon Hub Fabric Energy Efficiency Standard, for specific energy targets.

A number of respondents proposed dropping the Simplified Building Energy Model (SBEM), which is said to ‘actively suppress innovation’. The issue of transparency applies here – users cannot understand how SBEM handles innovative approaches, and so it is hard or impossible to “tune” an innovation to achieve the best outcome in SBEM, or to provide guidance on how to use an innovative approach in a way that minimises carbon emissions. This is a perverse outcome.

Members ask that for every type of building there should be a target in the form 'kg CO2 per m2 floor area'. A competent designer should provide a design which shows how the design meets the target, and there should be rules about how that is done. CIBSE produces benchmark data which may be useful in developing this approach.

Some respondents noted that other EU countries have simplified methods of compliance and the UK should review these and see what can be used as best practice.

Incentives and Penalties

It is widely considered that there needs to be a greater incentive to comply with the Building Regulations by increasing the likelihood of proper compliance checks, by making non compliance a more costly offence and by publicising when buildings fail to meet the Regulations. We believe that our proposals for a Part L compliance scheme modelled on Part A would increase the incentives to comply, would place full professional responsibility on those certifying compliance, and would free Building Control to focus on enforcement, both of notified works and also more actively seeking out unauthorised or notified activity, particularly in the domestic sector. This sort of work poses a significant risk in terms of sub standard work which threatens the health, safety and energy performance of those buildings.

Clients also need a better awareness of the costs for ensuring compliance so this should be made clearer. This would be inline with Article 27 of the recast EPBD regulations.

Devolved Regulations

It is felt that the situation that exists where England, Wales, Scotland and Northern Ireland have different regulations, different energy/carbon calculation procedures and SBEM versions is not helpful. The smaller countries are nowhere near big enough to justify duplicating resources. It is felt that the countries should club together and pool resources to reduce overheads and duplication. For those companies who operate across the boundaries of the devolved jurisdictions, there are additional compliance issues which are a pure regulatory burden and overhead cost.

Process

The forthcoming introduction of the requirement that the carbon emissions calculation should form part of the submission for Planning Permission was welcomed by several respondents. They believe that this will assist the process by:

- making the Client / Developer consider Part L much earlier;
- determining whether the proposed project can actually comply;
- highlighting potential deficiencies in the planned design early and
- providing a checkpoint to ensure that an "as designed" SBEM has been carried out.

It was suggested that the energy performance certificate, display energy certificate and the Building Regulations compliance documents should be incorporated into a single document, although there may be legal issues that prevent this.

Several responses argued that in order to get better quality submissions all projects should provide the full range of supporting documentation. Also the compliance report should include fuller information on the input data to make it clearer what has been used for calculations. We believe that our proposals for a Part L scheme would require this for the suitably qualified person to be able to sign off the compliance certificate.

It has been said that the requirement for renewables that has been introduced by many planning authorities is unnecessary and that it should be possible to allow the design team to justify the non-inclusion of LZC balanced against gross carbon performance if made under sound economical argument. Greater emphasis should be made on more efficient buildings and fabrics and reducing energy consumption.

Finally, it has been suggested that a 3 year post occupancy energy review (based on energy bills) should be conducted to provide feed back, which could be coupled with a requirement for all buildings to display an energy certificate showing measured energy use.

Existing Buildings

Much energy use is in existing buildings. It is suggested that Approved Document L2B needs to have typical calculation sheets that may be followed and submitted that shows the calculations or technical reasons and process for demonstrating why improvements have been selected or, where they are not feasible, shows the technical or cost reasons for this. Again, there is a compliance issue – until it becomes expected that existing buildings should be upgraded in terms of their energy performance, it will not happen. This jeopardises all our national energy security, carbon emissions and climate change targets, since existing buildings account for over two thirds of the buildings that will exist in 2050, by which time we are due to cut buildings related emissions by 80%.

There was a most unfortunate decision to leave out any proposal for consequential improvements to dwellings from the consultation on the 2010 revisions to Part L. Now that the full costs have been exposed as some £720m, and given the new government's commitment to be the "greenest ever", CIBSE believes that the 2013 revisions to Part L must contain a requirement for simple, cost effective consequential measures such as insulation, efficient heating and controls and draughtproofing wherever extension or refurbishment is carried out in dwellings. Again, given the predominance of the existing stock and the carbon targets, this is a matter of some urgency for the government.

Energy Performance Certificates / Display Energy Certificates

Energy performance certificates come under separate regulations, but member's responses highlighted areas of concern and this demonstrates how closely the regulations are linked with the Building Regulations 'on the ground.' We feel it is important to include these comments on EPCs as members have made the effort of submitting their views on them.

It is thought that EPCs are overly complicated to produce and only apply for an initial period after construction, so their value in the current format is questionable. Some have argued that they have a negative effect on good CO2 design. There is concern that it is almost impossible to lodge an accurate EPC soon after completion, as the Energy Assessor has great difficulty in obtaining all the necessary as-built information to achieve this.

It has been suggested that the building model (from whatever software has been used) should be submitted with the EPC to CLG. This would make it easier for any authorised person to be able to scrutinise the model and more importantly make it easier to pass on to the building owner for further use/development when changes are made or a new EPC is required, although this would be limited in use since it would be tied to a particular software brand. It should be mandatory for new buildings to have a display energy certificate (DEC) in the second year. This would demonstrate how the building is actually performing in practice. There could be a check that recommendations are being followed up by the building owner.

Annex 1. The Chartered Institution of Building Services Engineers (CIBSE)

CIBSE is the learned and professional body for building services engineers, with a global membership of around 20,000 (13,000 in England and Wales). The Institution, a registered charity, exists to “support the Science, Art and Practice of building services engineering, by providing our members and the public with first class information and education services and promoting the spirit of fellowship which guides our work.” CIBSE is licensed by the Engineering Council to assess candidates for inclusion on ECUK's Register of Professional Engineers.

CIBSE is the standard setter and authority on building services engineering in the UK and is the prime source of expertise for sustainable buildings. CIBSE is represented on major bodies and organisations which govern construction and engineering occupations in the UK, Europe and worldwide. We harness our members' skills and knowledge to raise competence across the industry. We publish the CIBSE Guide, Codes and other guidance material which are internationally recognised as authoritative, and set the criteria for best practice in the profession. CIBSE is particularly active in the development of advice, guidance and good practice relating to the implementation of the Building Regulations, most particularly Parts F, G, J and L, dealing with conservation of fuel and power. CIBSE publishes extensive guidance to the Regulations and also publishes second tier documents which are cited in Part L.

Buildings account for almost 50% of carbon emissions in the UK. Whilst building services systems which heat, cool, ventilate and power everything within the building are responsible for the bulk of these emissions, innovative services design can dramatically improve their energy efficiency. Our members continue to design and create the most environmentally friendly systems (both building services and passive environmental design) in many major building projects across the globe. In so doing they routinely have to balance the requirements of the building regulations with those of planning. It is our observation that the tensions and conflicts between the planning and building regulations requirements are, if anything, increasing. CIBSE is dedicated to the development of better buildings through education, research, communication and maintaining an active role in determining governmental regulations and legislation. CIBSE is the vital network that underpins much of the thought and imagination that has contributed to the evolution of building design, manufacture and maintenance.

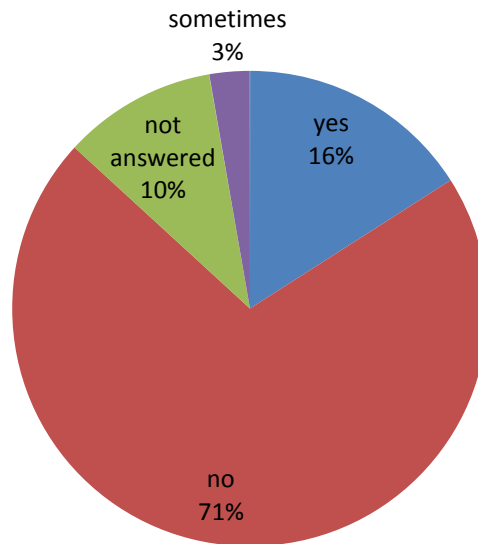
CIBSE also provides training to accredit engineers to become Low Carbon Consultants (LCC) and Energy Assessors (LCEA), the latter of which are qualified to issue Energy Performance Certificates (EPC) and Display Energy Certificates (DEC).

The Society of Light and Lighting (SLL) is one of the CIBSE constituent societies and is the most senior and largest body representing lighting professionals.

Annex 2: CIBSE Member Survey Question Results

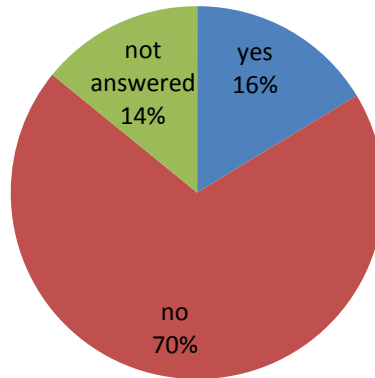
A survey was carried out of our members and over 180 responses were received. The participants were asked a range of questions in the short survey which focussed on current compliance with Part L of the Building Regulations. The following charts show the responses from our survey on a number of these questions:

1. Is compliance with the limits on fabric, services, lighting and controls checked?



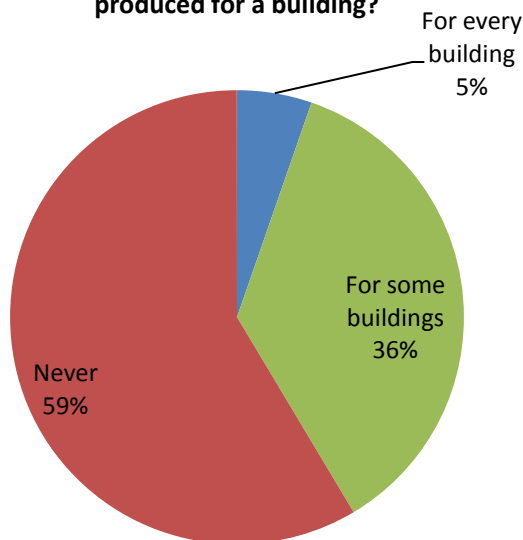
We asked whether the compliance with design limits on fabric, services, lighting and controls is checked. The answers demonstrated that building control officers were not generally checking that all limits had been complied with, especially not with lighting and controls. Over 70% of respondents indicated that not all of the limits had been checked. This would indicate that only the basic elements of limits were being checked and the important areas of lighting and controls were being neglected due to lack of knowledge in these areas by Building Control Officers.

2. Do Building Control Officers (BCOs) routinely check that Target Emissions Ratings (TER) calculations have been carried out, and then check that Building Emissions Rating (BER) calculations are really based on the 'as built' and not the design data?

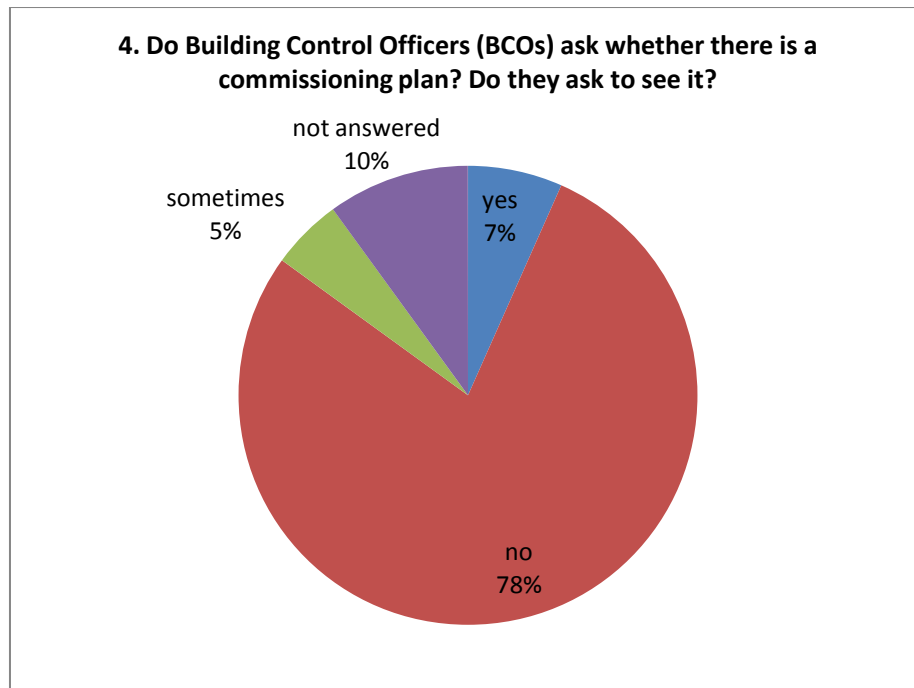


The next question was to establish whether building emissions ratings and target emissions ratings are carried out and checked and that they are based on 'as built' data. 70% of people gave the response that this was not being done. Generally the answers were around BCO's not checking that the data was 'as built.' This would suggest that BCO's are overlooking this area of compliance.

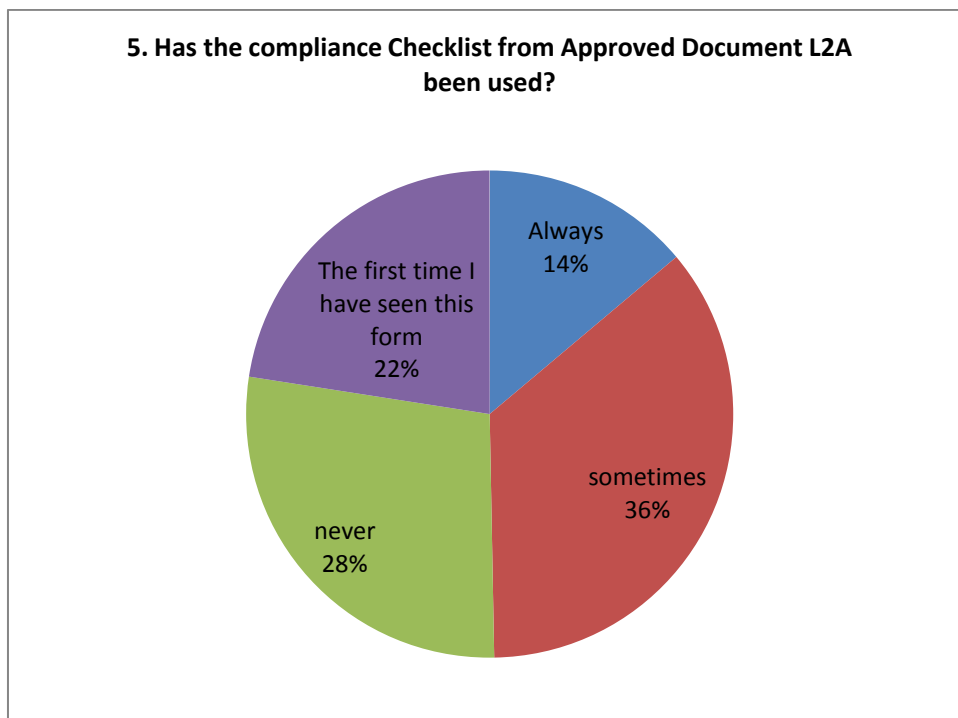
3. Have you been asked to demonstrate that a Logbook has been produced for a building?



Members were asked whether logbooks were requested on building projects. Over half of the respondents (59%) said they were never asked for logbooks and only 5% of people said they were always asked for logbooks.



We asked members whether they were asked for a commissioning plan. The majority, over 70%, of respondents said that they were not asked for a commissioning plan. This would indicate that building control officers do not understand the importance of asking for this document.



We asked members whether they had been required to use the Approved document L2A checklist for compliance on their projects. Half of respondents had never used it and only less than 20% always used this form for compliance checks on their projects. This indicates that the tools for compliance checks are not being used widely.

Annex 3: Other supporting documents

The following report was referred to in putting together our response to this consultation. It demonstrates the variability of the various calculation tools that are currently approved for the calculation of carbon emissions, and the wide divergence in the results.

SBEM - An analysis of industry capability for the implementation of a software-based compliance approach for the UK Building Regulations 2006, R. Raslan and M. Davies, Building Services Engineering Research and Technology, May 2010; vol. 31, 2: pp. 141-162., first published on March 4, 2010



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Annex 4: Society of Light and Lighting Response

Society of Light & Lighting response to Communities and Local Government on the future of the Building Regulations

The Society of Light & Lighting believes that the current requirements for lighting do not go far enough and does not encourage good building design.

In line with our position on the European Commission 'Working Document on possible measures targeting the energy efficiency of lighting in the tertiary sector', we believe that a move away from simplistic limits on equipment efficiency through installed power density and a move over to system-based energy consumption target is essential.

The daylight element of the current regulations is extremely weak and takes no account of location, orientation, shading or dirt. For example, if you compare a building in the city of London with one on the outskirts of Hemel Hempstead, the daylight availability is completely different and hence the reduction of artificial lighting will be very different.

The requirement for lighting controls is currently totally inadequate. Controls **MUST** be automatic, it cannot be an option. There are enough studies to show that humans do not switch off lights and this is applicable whether it is upon leaving a room or when there is adequate daylight for them to be surplus to requirements.

To this end, we would strongly encourage the introduction of LENI as the metric in all cases of non-domestic buildings to decide whether lighting is suitable and efficient; whilst it is important not to use poor quality products that waste energy, this need not be related to the building regulations as such products are being removed from the market through to the impact of the Energy Using Products Directive.

There are existing European standards that permit the calculation of energy consumption of equipment in buildings, for example in lighting BS EN 15193:2007 *Energy performance of buildings — Energy requirements for lighting* and these should be the actual basis for all calculations of energy performance. There is validated software already available to calculate LENI and given that there is a complete set of standards to support the Energy Performance of Buildings Directive, it should be possible to create software that checks the energy performance of whole buildings more effectively than local calculation methods like SBEM currently offer.

The key issue with domestic buildings is the amount of daylight. We would recommend that the values for daylight in dwellings given in BS 8206-2 be adopted as absolute minima. We believe that the building regulations should not be overly concerned about the energy efficiency of domestic lighting equipment as this is controlled by the Energy Using Products Directive.

Finally, lighting design is not just about minimum energy consumption; it must express the sense of place for the building as well as lighting the task and creating a visually pleasing environment that is healthy and affects the well being of the occupants in a positive way. Government should be encouraging designers of buildings to consider lighting, health and well being AND energy consumption in mind. Reductions in energy consumption will occur if the lighting installation satisfies all the occupants' needs. We therefore recommend inclusion that the lighting of all new and existing buildings complies with the SLL Code for Lighting.

12 August 2010

It was asked whether the compliance with limits on fabric, services, lighting and controls is checked. The answers demonstrated that building control officers were not generally checking that all limits had been complied with, especially not with lighting and controls. Over 70% of respondents indicated that not all of the limits had been checked. This would indicate that only the basic elements of limits were being checked and the important areas of lighting and controls were being neglected due to lack of knowledge in these areas by Building Control Officers.

The next question was to establish whether building emissions ratings and target emissions ratings are carried out and checked and that they are based on 'as built' data. 70% of people gave the response that this was not being done. Generally the answers were around BCO's not checking that the data was 'as built.' This would suggest that BCO's are overlooking this area of compliance.

Members were asked whether logbooks were requested on building projects. Over half of the respondents (59%) said they were never asked for logbooks and only 5% of people said they were always asked for logbooks.

We asked members whether they were asked for a commissioning plan. The majority, over 70%, of respondents said that they were not asked for a commissioning plan. This would indicate that building control officers do not understand the importance of asking for this document.

We asked members whether they had been required to use the Approved document L2A checklist for compliance on their projects. Half of respondents had never used it and only less than 20% always used this form for compliance checks on their projects. This indicates that the tools for compliance checks are not being used widely.

Annex 4: Society of Light and Lighting Response to Building Regulations Consultation

The following attachment is the response from the Society of Light and Lighting on the Building Regulations consultation.