

Compliance with Part L1 of the 2002 Building Regulations

**(An investigation into the reasons
for poor compliance)**

**Final Report
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**The Energy Efficiency Partnership
for Homes**



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Future Energy Solutions
 The Gemini Building
 Fermi Avenue
 Harwell International Business Centre
 Didcot
 Oxfordshire OX11 0QR
 Telephone 0870 190 6114
 Facsimile 0870 190 6318

Future Energy Solutions is a business division of AEA
 Technology plc

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 certified to ISO9001 and ISO14001

Prepared by	Name	Christine St John Cox
	Approved by	
	Name	Ian McCubbin
	Date	3 rd May 2006

1 EXECUTIVE SUMMARY

This report sets out our findings of a study into the compliance issues associated with Part L of the Building Regulations. The study involved interviewing 59 Building Control Officers across the different Building Control sectors working within the existing Building Control system, the Building Regulations and Part L (2002). The interviews were carried out between November 2005 and March 2006. The study was limited to issues associated with new dwellings only and provided an insight into the common issues and the differences between sectors.

The majority of the interviews were carried out by telephone and covered England and Wales as well as Scotland. Rural and urban areas were covered alike as were areas of large-scale regional development. The interviews were carried out in a structured format and took on average 45 minutes.

These interviews were split into 2 phases and additional questions asked in the second phase to understand key focus areas further. A summary of the key results follows.

1.1 Summary of findings

- **Initial Contact**
 - 43 Building Controls Officers contacted in Phase 1, 31 interviewed
 - 46 Building Controls Officers contacted in Phase 2, 28 interviewed
- **Initial Reaction**
 - Many building control officers were too busy or unable to spare time to complete a 45-minute interview, as in some cases Part L was not seen as a priority.
 - Of those that were interviewed, the largest proportion were happy and interested, others were indifferent or unconcerned about Part L.
- **Local Authority Building Control Departments / Building Control Companies**
 - **Some Local Authority Building Control Departments are not in full control of the revenue that their work is generating. This means that they may be restricted in recruitment and training of staff;**
 - Recruitment for LA Building Control staff is difficult in some areas;
 - Local Authority Building Control officers have a high case load;
 - Private Building Controls do a small proportion of domestic work but choose the projects that they will do;
 - NHBC work with all the larger major developers on large scale developments;
 - **There is a tendency within some building control teams to have some specialised officers, however there is a distinct lack of officers who have specialised in Part L i.e. energy efficiency or building services;**
 - Local Authorities appear to have the highest caseloads, but the case size tends to be smaller;
 - **The officers interviewed appreciate the differences between the English and Scottish systems and indicated that they perceived it as more effective.**
- **General Compliance Levels**

- General Compliance levels are thought to be quite high. However compliance with Part L is thought to be one of the weaker areas;
- The enforcement powers and influence that each sector has available differs;
 - Local Authorities will write letters, refuse completion certificates and have the powers to take to court though this is rarely used due to costs and time restrictions
 - Private and NHBC can write letters and refuse completion certificates and have a greater influence on national companies, they can also refer cases back to the Local Authority.
- These powers are only used if other means such as gentle persuasion is not working;
- **There was a feeling amongst some officers that the inspections are treated as a risk assessment rather than a Building Regulations check;**
- **There was a feeling of TRIVIALITY where officers will not enforce refuse completion certificates or prosecute on a Part L issue.**
- There was disagreement amongst interviewees as to whether additional powers such as fixed penalties were necessary, **however a large proportion of the Local Authority Building Controls agreed that the 6 months statutory time available was not sufficient and that a further 6 months would provide a more suitable time scale;**
- Several Approved Inspectors wanted enforcement powers as they felt uncomfortable handing cases over to their competitors the Local Authority Building Controls. **This has created a lowest denominator environment where in the commercial world the successful Building Control Officers is the least stringent;**
- **Training, Communication and Quality Control**
 - Communication between Building Control departments exists at the Chief Building Control Officer level;
 - Communication between Building Control departments and companies, and industry is carried out at a local level, as well as nationally;
 - Local Authorities and the NHBC provide training for new starters;
 - Ongoing training is provided in a number of forms, through RICS and ABE, as well as industry providing seminars on new products and technologies available on the market;
 - There was a high level of dissatisfaction with the training and information dissemination provided for the new boiler rule;
 - Desirable additional training was seen to include simple practical training, through active sessions or self-help through websites;
 - Scottish Building Controls have a quality control system through the SBSA;
 - **In England technical queries are covered by ODPM but there is no central quality control system.**
- **Part L1 (2002)**
 - **Part L was low in the priority ranking for many Building Control departments as it was seen as “not life threatening”;**
 - Compliance was poor compared to other elements of the Regulations;

- In the case of a non-compliant element, Building Control officers were unlikely to take steps to ensure enforcement or withhold the completion certificate;
- Small companies and DIY cases appear to be a larger proportion of non-compliant cases. However this is still a small percentage of the total domestic market;
- **It was suggested that additional statutory inspections should be carried out for some of the part L elements such as insulation and thermal bridging.**
- **Technical hot spots**
 - Thermal bridging was shown as the worst area of non-compliance. Other significant non-compliance areas included conservatories, u-values, areas of windows, doors and rooflights, internal lighting, commissioning certificates, O&M manuals and air-leakage;
 - Much of this non-compliance was due to onsite cost cutting, ignorance and a lack of knowledge;
 - The actors most responsible for this non-compliance were the building contractors themselves, but architects, heating engineers and electricians were also thought to play a role;
 - **It was also apparent that an enforcement gap has formed between the competent persons scheme and Building Controls for the heating and hot water requirements;**
- **Industry**
 - The industry is perceived by Building Control officers as struggling to understand the need for energy reduction in buildings;
 - The supply chain has a role to play in ensuring that properly compliant products are provided;
 - **The construction industry is resistant to change and there is perceived to be an increasing gap between skill levels and the demands of regulations;**
 - **It was perceived that the Building Regulations were too complex for many parts of industry and access to all the supporting documents was difficult;**
 - **It was felt that the descriptive nature of Part L added complexity.**
- **Attitudes**
 - The general perception is that there is a need of attitude change to ensure that compliance is improved both, within Building Control and the construction industry itself.
- **Suitably Qualified Certifiers**
 - Building Control Officers overwhelmingly look for a CORGI, HETAS or OFTEC installer as a suitably qualified certifier for the relevant elements of Part L (2002)
- **Legal Liability**
 - There is perceived to be a chain of liability that starts with the homeowner, and finishes with the Building Control Officer, with the builder and subcontractors in the middle.
 - Building Control Officers perceive that they are not liable for economic issues. However they consider themselves liable for Health and Safety issues, and also

if the error is visible and it is perceived that the Building Control Officer did not inspect the site on a regular basis as laid out under the statutory requirements.

1.2 Recommendations

Analysis of the interviews found that there were issues arising within both the existing Building Control system and the wider industry. Therefore it is clear that there are barriers to be overcome in both these areas, some are associated with the existing systems and statutory requirements others from existing attitudes. Whilst the project initially set out to look at the technical areas and issues, the final recommendations are split into the following:

- System changes
- Attitude changes
- Training, skills and quality control changes

1.2.1 System changes

Scotland V England and Wales It is perceived that the Scottish system is far more successful than the England and Wales system. There are two key differences:

- the Building Warrant Certificate issues prior to building commencement; and
- that all Building Control officers are still attached to the Local Authorities.

The certificate means that all plans and issues must be agreed prior to commencement and therefore it is only on-site non-compliance that becomes an issue. The choice of compliance route adds complexity and has created competition between different Building Control Officers.

It is recommended that the current notification routes be reconsidered and the full plans notification route be adopted for all new developments in England and Wales. Secondly – in the medium term - a rationalisation of the current Building Control System should be considered to remove any potential issues arising from competing systems i.e. Local Authorities and Approved Inspectors.

Additional Inspections One of the key issues with compliance is actually being able to see the elements that need to comply. At present there is no requirement for inspection at one of the key points of construction for Part L that would influence U-values, thermal bridging and air leakage. It is therefore suggested that an additional inspection be included for this purpose. It would also highlight the importance of Part L to Building Controls and developers alike.

We suggest that a feasibility study is urgently carried out looking at the impact of introducing an additional inspection of this kind for Part L.

Local Authority Revenue Many Local Authority Building Control departments have been merged with Planning departments. Whilst all revenue generated by them is supposed to be reinvested in Building Control it is often being subsumed into budgets at a higher level. Many Building Control Officers feel forced to justify and fight for training and administration budgets.

It is recommended that a full survey or audit of Local Authority Building Control departments is carried out to determine the extent of such “lost revenue”.

Prosecutions There are different options available to each of the different Building Control sectors, but essentially if compliance is not achieved the last resort is prosecution. However these prosecutions are not taken forward on a regular basis, as the time gap available requires

fast action. In extending this time by a further 6 months it would enable more prosecutions to take place. Secondly the resources are often not in place to obtain the necessary legal support or by ensuring that Building Control departments are in control of their own budgets and funds they may be more likely to take things forward. Lastly by publicizing these cases threat of legal action will become more of a deterrent than currently is perceived by the developers.

We propose that the legislation relating to the statutory 6 months window for prosecutions should be amended to 12 months. We also suggest that suitable forms of legal service be made available to the Building Controls to enable them to take the cases forward.

Future Revisions Complexity As the document becomes more complex it becomes harder for all parties to interpret, secondly it increasingly references more and more documents which the developer or builder is expected to accumulate and know. For the larger developers this is unlikely to be too onerous. However for the smaller developers and builders it may prove to be impossible. Therefore it is likely that the skills gap will continue to increase unless assistance is given on a case-by-case basis. This is currently not available but may be the only way to ensure that builders understand the requirements that they are expected to meet. In reality the smaller builder or developer does not have the time nor knowledge to determine the best option to meet a descriptive rather than prescriptive requirement. He is therefore more likely to comply through luck rather than skill.

We recommend that all referenced documents are posted in one central place to enable easy access. We believe that a help line providing assistance should be setup to enable builders and developers to be hand held through the application process. We also recommend that a hand holding system is developed to provide basic practical solutions for the smaller developer who will not have the budget or time to research or understand future revisions of Part L.

Competent Persons The study detected that there was a gap appearing between the areas that are covered by a competent person and that of Building Control officers, those being heating, hot water, controls, insulation, commissioning certificates and O&M manuals. It is important to make clear the boundaries and ensure that the gap is reduced.

We recommend that these personnel gaps and overlaps are clarified to ensure that all aspects are covered during construction.

1.2.2 Attitude changes

Building Control Attitude Change and Enforcement The existing Building Control Officers must understand the reasons for Part L and learn that it is a section to be taken seriously. General enforcement of the Building Regulations was perceived to be good, however in respect of Part L, few interviewees said that they would write letters, or refuse a completion certificate as it “seemed trivial”. Until the current TRIVIAL attitude towards Part L changes it is unlikely that Building Control Officers will enforce or prosecute developers without the fear of ridicule. Just as Air Quality is now considered a serious issue, Part L or rather energy efficiency must undergo a similar attitude.

We recommend that possible options to generate this attitude change are looked at.

Attitude change in the Construction Industry and Compliance The key barrier to greater adoption within the construction industry is the current attitude to ‘energy efficiency’ and how it fits into the commercial realities of developments. Much of this is down to ignorance and a lack

of understanding. This study showed that in many cases it is small on site changes in workmanship and knowledge that will have an impact however these groups are the hardest to reach. Similarly until the Construction Industry realises the importance of Part L and that the Building Controls are taking it seriously, they are unlikely to change their approach.

We suggest that an options study be carried out on the best ways to reach these actors and ensure attitude change by providing practical information and solutions. Building Control must be seen to be taking energy efficiency seriously for builders and developers to ensure that they meet the requirements.

1.2.3 Training, skills and quality control

Building Control Skills The interviews showed that there was a clear lack of specialist skills in Building Services and Energy Efficiency, where there is a clear contrast with specialists in many of the other areas. As Part L becomes more complex there will be a greater need for knowledge in this area, which at present is not being catered for.

We recommend that specialists be trained or employed in this area to ensure that each department, group or company can cover all aspects of Part L.

Building Control Training Much of the training received by Building Control Officers provides them with information on products and policy development however there is a need to offer more training in the area of actual interpretation for real life cases in workshop format.

We suggest that more workshop-based training is provided looking at actual cases and their possible interpretations. We suggest that this is carried out by Building Control Officers themselves i.e. those that have on the ground practical experience.

Building Control Quality Control At present there is no consistent system in England and Wales, therefore a quality control system needs to be developed across all Building Controls sectors to ensure that there is a consistent approach throughout the country.

It is suggested that a national quality control system is established to ensure consistency amongst areas and Building Control sectors.

Market availability Many Builders merchants continue to stock products that are no longer compliant. Energy efficient lighting is one example, where the cheapest product is unsightly and therefore not fitted or fitted in an un-used space. However there are a number of new subsidized products on the market which could be selected instead if they were widely available or pushed by the merchants.

We recommend more rigorous inspection of products' conformity to Building Regulations requirements at the point of sale.

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2 INTRODUCTION

2.1 Introduction

The aim of this project, and its associated interviews and analysis activities, is to determine the current levels of compliance with Part L1 of the Building Regulations, specifically for new dwellings.

This final report sets out this project's findings from a series of interviews carried out with Building Control (BC) Officers throughout England, Wales and Scotland. It provides recommendations and pointers on possible approaches that could be adopted to improve the current non-compliance within the construction industry. The study was carried out in two phases, both consisting of a series of structured interviews with differing types of building controls – Local Authority Building Controls, Private Building Controls and NHBC Building Controls.

The first phase interviews covered a wide spectrum of areas including:

- The Building Control function as part of the Local Authority
- The Building Control skills base
- Building Control funding
- Case load and processes
- Compliance and enforcement
- Training and Communication
- Review of specific technical areas including areas such as lighting, air leakage etc.

After Phase 1 the interim results were presented and discussed. It was agreed that the Phase 2 interviews should continue to focus on building control officers, with more specific areas looked at in more detail, these being:

- Quality control
- Enforcement and prosecutions
- Funding and revenue
- Competent persons

This final report summarises our findings from the interviews, and sets out a series of recommendations. The report includes Sections explaining our methodology, interview format, sample size and geographical spread, followed by a wide-ranging analysis of our findings.

2.2 Context and background

The Energy White Paper 2003 announced the revision of Part L of the Building Regulations and highlighted the need for better enforcement of the Building Regulations. This was then followed by the Government's Plan for Action in April 2004, which stated that there was a need to understand the key problems and how compliance could be improved.

Last year the Energy Efficiency Partnership for Homes published a study on 'Compliance of the Building Regulations', which identified that a significant number of new homes are failing to comply with Part L. This work takes this initial study further, by seeking to understand further what issues are associated with this non-compliance.

The overall objectives of this research project are to:

1. Establish the types of - and problems leading to - non-compliance in new dwellings
2. Establish the roles of the relevant actors (e.g. developers, builders, designers, Local Authority/regional officers) in each type of problem
3. Develop practical recommendations to address each type of problem.

2.2.1 England and Wales Building Control System

The Building Control System in the UK is both complex and detailed. There are many different routes to compliance, including different application routes as well as compliance methodologies. More information on the Building Regulations can be found on the ODPM website or in their explanatory booklet¹.

The Building Regulation documents are generated and published by the Buildings Division at the Office of the Deputy Prime Minister, but enforced by several routes throughout England and Wales. Figure 2.1 shows the possible routes for compliance dependent on the type of work that is being carried out.

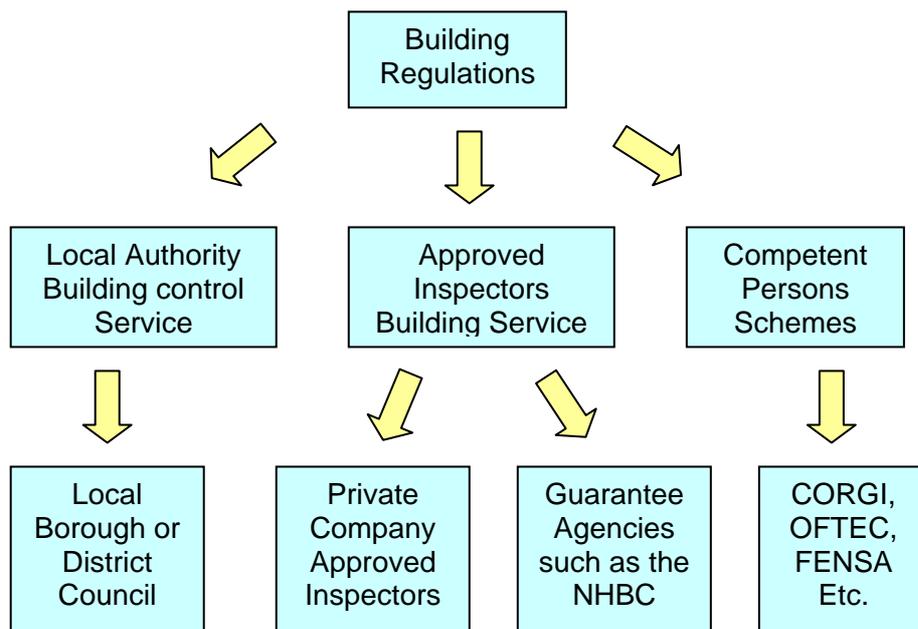


Figure 2.1 Building Compliance Routes

In the case of a new dwelling it is possible for the developer to apply through each - or a combination - of these routes.

Approved Inspectors are private sector companies or practitioners who are approved for the purpose of carrying out a Building Control Service. Up until recently for insurance purposes they have not been able to carry out any inspections on new dwellings, however this has now changed and they are becoming more involved in new dwellings. Previously there were only two routes available for a developer, through a Local Authority Building Control or through one

¹ http://www.odpm.gov.uk/pub/117/BuildingRegulationsExplanatoryBookletPDF1191Kb_id1131117.pdf

of the guarantee agencies such as the National House Building Council (NHBC), which has its own Building Inspectors.

The “competent persons” schemes that are available provide an alternative route where it is possible to employ an installer registered with the relevant self-certification scheme.

As well as the private Building Control companies there are a number of guarantee agencies, which provide a 10-year warranty guarantee and insurance policy. The two largest, are the NHBC and Zurich. During this study we contacted both. Zurich do not have any in-house Building Inspectors. The NHBC does and so therefore we have included NHBC in this study.

In terms of total new dwellings built in the UK, the NHBC claims that they are responsible for around 85% of the market. This accounts for a large proportion of more sizeable developments. Smaller developments are more typically inspected by Local Authorities.

NHBC employs over 350 building inspectors across the UK, who carry out and collect data on more than one million inspections at key stages of house construction each year. As well as inspectors, they employ surveyors, engineers, energy assessors, health and safety, training, registration and claims staff, who all deliver NHBC's key services. As a national company they have offices in London, Amersham, Milton Keynes, Droitwich, York, Edinburgh and Belfast.

NHBC has two main customer groups - new home buyers and registered builders and developers. They provide new home buyers with a 10-year warranty and insurance policy called 'Buildmark', and assist registered builders and developers to improve the quality of new homes.

2.2.2 The Compliance Route Split

It is estimated that approximately 180,000 new dwellings are built in the UK each year. The NHBC claim that 85% of those are built through their compliance route. This percentage tends to take the form of larger developments i.e. over 100 units. On the other hand Local Authorities claim that around 1 in 5 of their caseloads are new domestic developments however these tend to be the smaller developments. (see section 4.2.7)

2.2.3 Scottish Regulations

In 2003 the Building (Scotland) Act 2003 came into force, which amended the regulations for applications after May 1 2005. Prior to this change the Scottish regulations followed a similar format to those south of the border, with each section assigned to a letter (although at this stage however the English and Scottish section lettering did not match, for example in Scotland Conservation of Power and Fuel was Part J, whereas in England and Wales it is Part L). Following the 2003 Act the regulations are now in Sections numbered 1-6, where Section 6 is Energy.

Technically the regulations in Scotland are very similar to those in England in Wales. However, a feature of Part J that differed was the requirement for a BC Warrant in Scotland before work could commence. While this remains the same in principle, in Section 6 there is some work in houses that no longer requires a warrant. Another difference in Scotland is that previously only the Local Authority BC could grant certificates. This has changed slightly since 2003 with the creation of the Scottish Building Standards Agency (SBSA). At this time new powers were granted to structural engineers for checking work, however the bulk of the work in Scotland is still covered by LA Building Control.

2.3 Influencing bodies

2.3.1 Local Authority Building Control

The Local Authority Building Control (LABC)² service is considered to be as the UK's leading national building control service. Its web site states that it is committed to maintaining the highest standards in the built environment.

2.3.2 District Surveyors Association

The District Surveyors Association (DSA) was formed some ten years ago as a result of the amalgamation of the Society of Chief Building Regulation Officers and the London District Surveyors Association. The DSA is widely recognised by both government and industry as being the body which represents the interests of Local Authority Building Control (LABC).

Membership is drawn from the Heads of Building Control in England, Wales and - more recently - Northern Ireland, with a combined total of approximately 400 Local Authorities. Eligibility to become a member is extended to all professional building control officers and retired persons who are not engaged in work that would conflict with the aspirations of the association.

The purpose of the organisation is to represent the interests of LABC on a wide range of issues to central and local government, customers of the service and individual members. This is carried out through working groups, meetings and responding to consultation documents both formal and informal.

Council is the policy making body for the DSA and sets the aims and objectives for the operation and development of LABC. It carries out this role through its technical and management committees and the Policy Group. The DSA functions as an organisation via a network of 13 regions with each region electing members to sit on Council.

The bodies that DSA formally work with on LABC matters are;

- Office of the Deputy Prime Minister (ODPM)
- Local Government Association
- Performance Standards Advisory Group
- Local Government Training Organisation & Improvement and Development Agency (LGNTO / IDeA)
- Society of Local Authority Chief Executives - Professional Organisations Network (SOLACE)
- Local Authorities Coordinators of Regulatory Services (LACORS)
- Building Regulations Forum (BRF)
- Association of Corporate Approved Inspectors (ACAI)

² <http://www.labc-services.co.uk/default.asp>

- Chartered Institute of Public Finance and Accountancy (CIPFA)

3 METHODOLOGY

3.1 General

The study was split into two phases as shown in Figure 3.1 below.

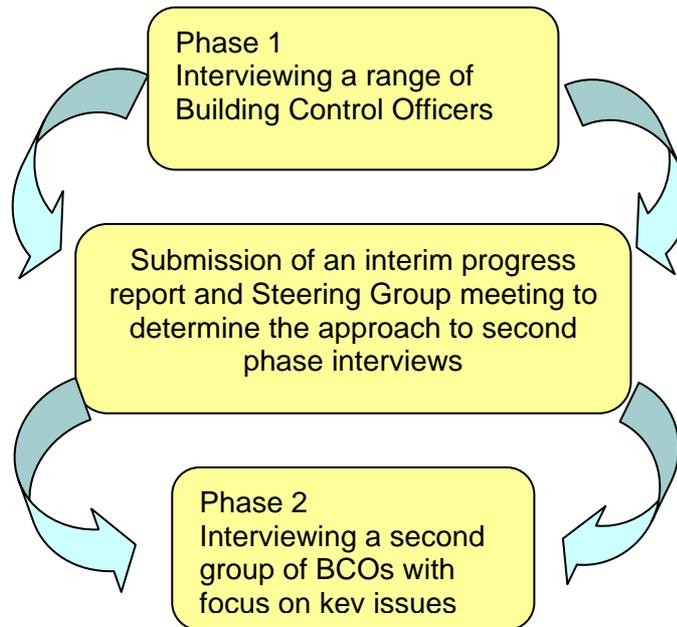


Figure 3.1 Phasing of the project

During the meeting with the Steering Group it was agreed that the secondary phase of interviews should be focused on a second group of Building Control Officers, looking at a slightly different range of officers.

3.2 Phase One - Initial investigation with Building Control Officers of types of problems leading to non-compliance

3.2.1 Actor selection, geographical spread and sample size

Subsequent to a kick off meeting with the Energy Efficiency Partnership for Homes on 29 September the following geographical areas were agreed as targets for interviewing.

Area	Theory
Scotland – Glasgow	Establish country differences for Regulations and Compliance
Wales – Cardiff/Swansea	Establish country differences for Regulations and Compliance
Manchester	Northern area of growth and investment potentially some urban and rural
Birmingham	Particular growth areas such as east side
Leeds	Northern area of growth and investment potentially some urban and rural
Weston Super Mare	Rural Area
Northolt	West London, Urban
Thamesmead	East London, Urban
Milton Keynes	Rural Central England growth area
Reading	Rural Central England growth area
Southampton/South Coast	Coastal Growth area

This included 5 areas that were studied during previous projects.

This geographic spread aimed to ensure that there was good coverage of potential regional differences, including England and Wales, north, south, urban and rural. Within each of these areas it was hoped that at least 3 different building control sources could be identified and interviewed. The aim of this was to maximise statistical validity in providing true representation of each area.

A full list of the areas from which we contacted and interviewed building control officers can be found in Appendix 2.



3.2.2 Contact and interview

By contacting both Local Authority and private Building Control companies we were able to build up a list of over 75 Building Control officers for Phase 1. These 75 were contacted by email explaining the purpose of the project and what was required from them. We then contacted the relevant parties by telephone to explain the purpose of the work further, determine if the stakeholder would be happy to take part, and if so arrange a possible time for an interview.

The aim of the interviews was to provide:

- An understanding of the level of compliance with Building Regulations according to these officers and their departments
- Details of the most common problems leading to non-compliance

A structured interview format was developed by Future Energy Solutions (FES) and approved by the EEPfH, which enabled the interviewee to be questioned in depth on a range of topics, without “leading” their answers. (See Appendix 1 for the questionnaire)

To ensure a consistent breadth and depth of questions the interview format was structured in a ‘choose your own story’ style³. Where possible the format was designed to provide ‘Yes/No’ ‘degree of agreement’ style answers to enable some statistical analysis to be carried out.

Using a team of experienced consultants we visited approximately a quarter of the actors in Phase 1, with the remaining interviews being carried out by telephone. More information on all of the interviews is included in the analysis section.

The interview questions were targeted at the following areas, and aimed to provide both factual information as well as an understanding of the Building Control Officer’s perception of compliance levels.

³ ‘Choose your own story’ – the aim being to develop an interview which enables the interviewee to follow a structured format style in the interview in his / her own way, despite the wide variety of topics that may be covered.

The interview was split into several sections:

- An introductory explanation of the project, the context and reasons for the work
- A request to the interviewee for the provision of “honest answers” throughout the interview, despite the fact that some of the issues raised may have wide sensitivity within the industry
- **Your Local Authority or Building Control Company** - Either a section on the Local Authority Building Control or the Private Building Control to understand the context of their work.
 - Questions were asked about the company/Local Authority (LA) and funding issues.
 - In each case this questioned the officer on his/her profession, case load and company/department demographics.
- **General Compliance and Enforcement Levels** - A series of questions on general compliance levels, and enforcement for all parts of the building regulations
- **Training and Communication** - An understanding of the training that Building Control officers were receiving, and the levels of communication between departments, companies and industry.
- **Part L1 (2002) General and Technical hot spots** - Information on specific technical areas including areas such as lighting, air leakage etc. An understanding of the main areas of non-compliance and the reasons for this non-compliance, for example establishing if it was due to ignorance, cost-cutting, lack of quality assurance or lack of will or skills by builders/other tradesmen.
- **Industry** – An understanding of the role that industry play and any comments on how this can be improved.

In each case, where relevant, an understanding of which relevant parties (professionals or tradesmen) are responsible and the associated influencing factors, including size of organisation and other demographics;

- For example if the LA or body has tried to provide additional information or undertaken activities to improve compliance; OR
- If any recommendations that could be made to improve compliance, such as:
 - Increased resource,
 - Increased powers to obtain compliance,
 - Increased external performance monitoring,
 - Alternative compliance routes such as competent persons,
 - Additional initiatives by other bodies, which might lead to higher standards

As the interviews were carried out over several weeks, a feedback system or ‘loop’ was built in to ensure all our interviewers were aware of issues that were raised in the initial interviews. This allowed us to be responsive to initial interview output and tailor remaining interviews to gain agreement on – or to clarify – previously expressed views.

3.2.3 Analysis

The data was collated and analysed, as soon as the interview process was under way. We provided data in graphical form where possible, breaking down areas for non-compliance into the topics as shown above.

In each case we considered geographical spread. We built up an understanding of where Building Control officers have identified the relevant parties, who they might be and provide analysis on any activities that have been undertaken to improve compliance on a local basis. We also provide any information gained on the effectiveness of these activities. We checked the degree of agreement levels to identify any 'hotspots' and to ensure that the overall results were not influenced too heavily by results from specific individuals.

3.3 Phase Two – Further detailed investigation with Building Control Officers of types of problems leading to non-compliance

3.3.1 Actor selection, geographical spread and sample size



During the second phase the desired split of Building Control Officers meant that the geographical spread became more random. The range included more Local Authority Officers, Private Inspectors and a significant proportion of NHBC Building Inspectors.

3.3.2 Contact and Interview

To ensure that we reached Inspectors that were looking at the larger developments we contacted a number of the larger developers to determine their route for compliance. The NHBC was identified as an important actor through telephone enquiries to housing developers. All of those developers providing an answer stated that they used the NHBC, although some also used Local Authorities.

In all we contacted 15 branches of the larger developers and heard back from 7. Developers contacted included Bellway Homes, Barrett, Wimpey and Bryant Homes.

On completion of this initial exercise we set about arranging interviews with suitable proportions of each type of Building Control Service. During Phase 2 we carried out 28 interviews, consisting of 8 surveyors and 8 inspectors from the NHBC, and a further 12 Local Authority and Private Building Controls interviews.

The interview followed a similar format to that of Phase 1 to enable existing results to be further verified but additional questions were added in the following areas:

- Quality control
- Enforcement and prosecutions
- Funding and revenue
- Competent persons

In each of these areas further questions were asked to provide detailed explanations.

3.4 Additional questions

The steering group meeting and workshop held on 24 February 2006 recommended that two additional questions should be asked. These questions covered three specific areas:

- What is Building Control Officers' perception of liability for a completed project?

- How does the Building Control Officer determine who is a 'suitably qualified certifier' under Part L1 (2002)?

These additional questions were put to interviewees during late March 2006. The precise wording of the questions is shown in Appendix 1.

Apart from Scottish interviewees, all those persons interviewed in the first two phases were contacted again. Some however were unable or unwilling to take part.

The analysis of these additional questions is shown in Section 4...

4 ANALYSIS

4.1 Interviewees

To ensure that the required sample of interviews was completed a significantly larger number of Building Control Officers were contacted in each phase. In total 89 Building Control Officers were contacted, 43 in Phase One and 46 in Phase Two.

In many cases the officers were not receptive to the project as they felt that Part L was not a priority, and therefore they were not able to spare 45 minutes for an interview. In total 59 officers agreed to be interviewed, 31 in the Phase 1 and 28 in Phase 2. The final split of officers contacted and interviews undertaken is shown in Figure 4.1.

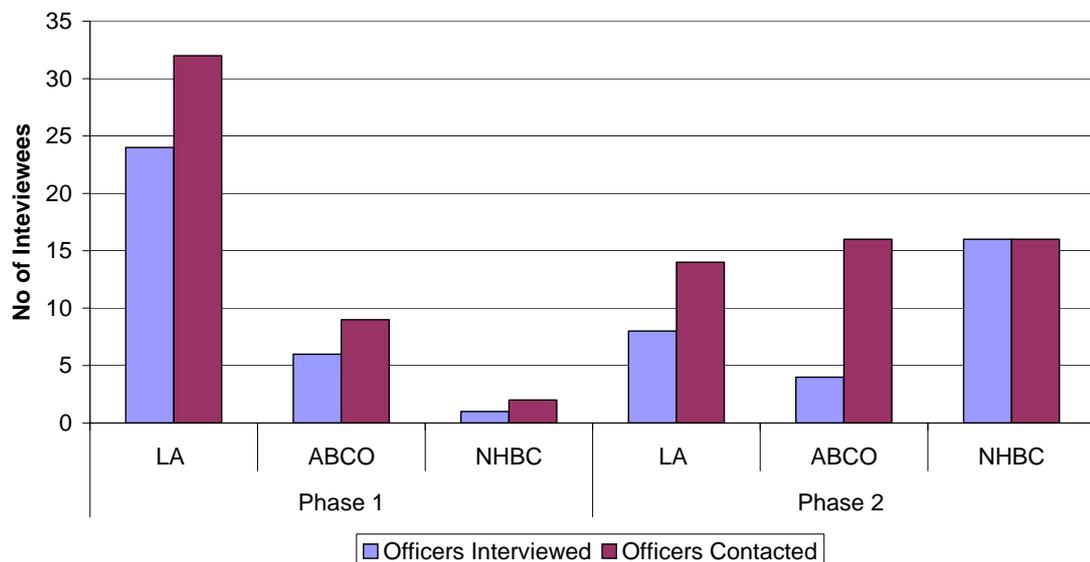


Figure 4.1 Contact and interview split

Of the remaining 30, we received the following various responses:

- 6 maintained that they were too busy;
- 11 were unwilling or unable to arrange dates, or to be available for them. These people were contacted on numerous occasions (at least 4 times);
- 2 said that they did not want to be interviewed as Part L was not a Health and Safety priority;
- 5 private building control companies said that they didn't have officers who would be suitable to interview;
- 1 agreed to the interview, but during it explained that he didn't do any domestic work;
- 1 interviewee didn't want to do the interview by telephone, he wanted to do a questionnaire;
- 2 private companies said they had no interest in the topic;
- 1 company didn't do domestic work;
- 1 company referred us to a member of staff in another region, who we had already interviewed;

In Phase 2 we asked the interviewees what their initial response was when first asked to take part in the survey. A third of those asked were genuinely happy to take part and interested. A fifth were concerned about Part L and therefore happy to take part, a quarter were indifferent and another quarter surprised and flattered to be asked to take part as shown in Figure 4.2.

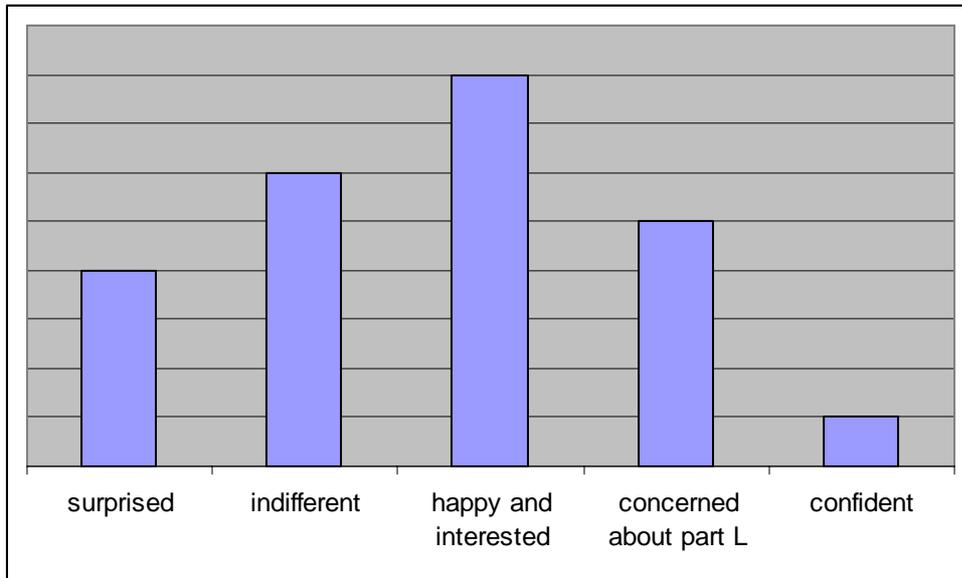


Figure 4.2 Initial reaction of interviewees

4.2 Department, Company and Professional Details

4.2.1 Average size and range of departments

Within Local Authorities the average department size is 13 Building Control officers. This ranged from a minimum of 3 in Inverclyde to a maximum of 35 in Bradford.

The average for the private companies was 8 Building Control officers. Here the minimum was 3 in Birmingham and the maximum 30 in Leeds. It should be noted that many of the private officers interviewed were from companies that work nationwide; therefore the number here is for their local department, not the company as a whole.

4.2.2 Professional background of Building Control Officers

There was a range of professional backgrounds from the officers interviewed and their colleagues in Building Control. Most had always worked in Building Control or had originally worked as surveyors or come from the construction industry. Figure 4.3 represents the range of professions for those Building Control officers interviewed.

It should be noted that in all the interviews carried out we only came across one person who considered themselves an energy specialist i.e. none skilled in Building Services or CIBSE qualified.

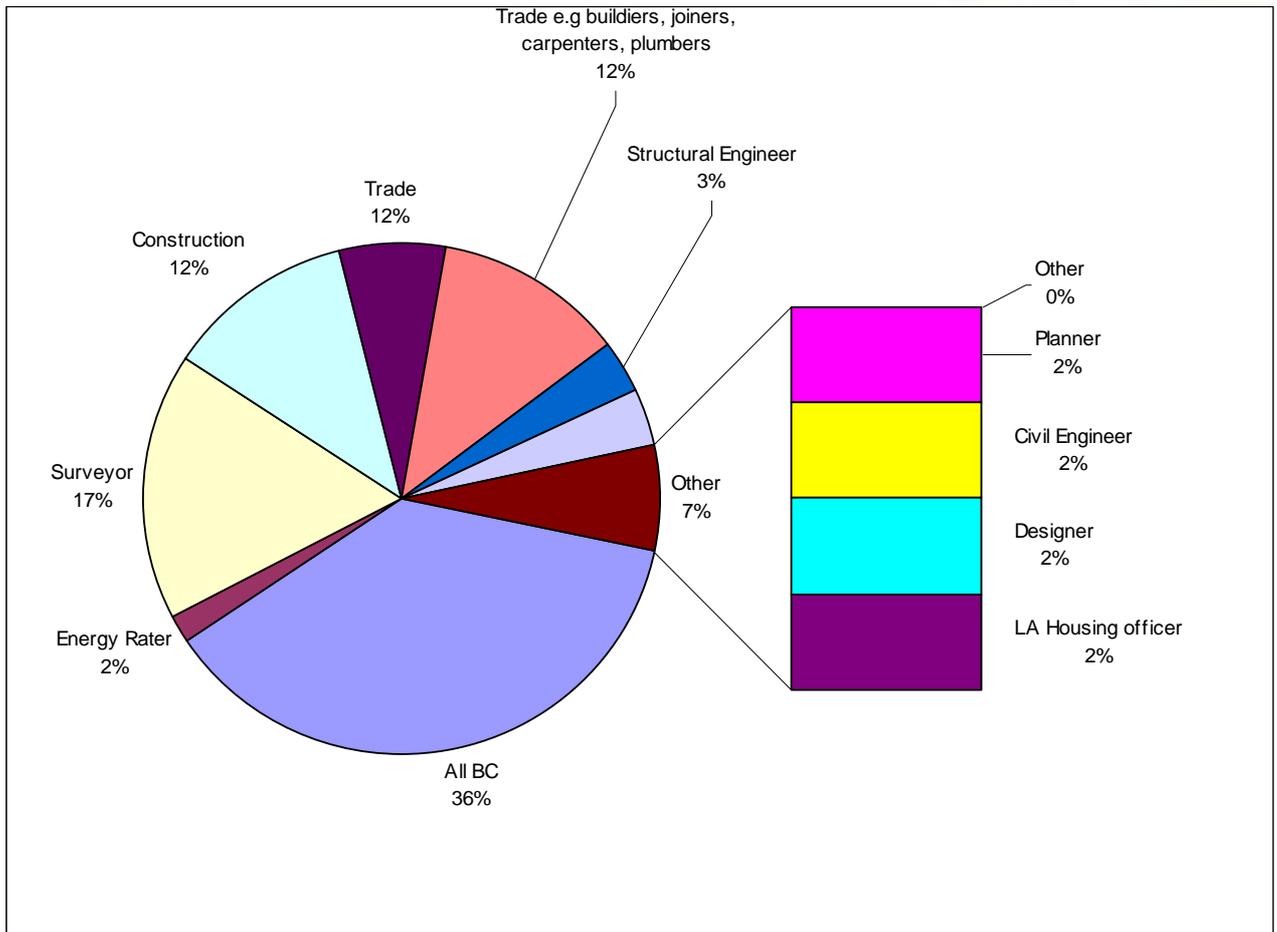


Figure 4.3 BC officer professional backgrounds

4.2.3 Funding Split

Local Authority Building Controls are expected to be self-sufficient over a 3-year period and must break even during this time. It should therefore be expected that all revenue generated by Building Control applications should be reinvested back into the department.

- Of those interviewed in Phase 1 75% understood that their departments had to be self-sufficient, with money earned from processing applications for large new developments being reinvested into the Building Control department, however in many cases were unable to confirm that this was the case. Many of these interviewees didn't know why as they were not involved in the departmental finances or council politics.
- 18% of those answering the question on funding expressly mentioned that the money brought in from notices either goes into a communal council funding regime, or a "planning and building control" budget heading. These Building Control officers are envious of their counterparts that are able to reinvest. Some believe that Building Control is being used to provide income to fund other council departments. In areas where large developments are being built, a lot of money passes through Building Control yet departments are often understaffed, as they cannot afford to hire new labour.

- In Phase 2 the 8 Local Authority Building Control Officers interviewed were probed further about their department's revenue. As seen with many of the Phase 1 interviewees their department was teamed with the planning department and all revenue was either collected at that level or at Council level. This then led to a situation in which the Building Control department had "to bid to get its own funding back". Interviewees explained that this could be admin support or more importantly for training where a central training budget is held. They are then in a position where they have to justify why they should receive training or admin support.

4.2.4 Hiring/recruitment by LA

Generally Local Authority Building Controls are understaffed and are having problems recruiting: one LA interviewed claimed to be 50% down on staff numbers. There is a shortage of people training to become Building Control officers, as there is evidence that those with experience may be head-hunted by private companies. Private Building Control companies pay more, have a better case load as they can choose their clients - to a certain degree - and can concentrate on the less mundane cases.

Both Local Authority departments and NHBC offer apprenticeships,

- Local Authority Building Control departments are still keen to take on trainees, offering them the training by funding them through college or university on day release,
- The NHBC has set up its own Academy to allow it to hire trainees and support them through training.

4.2.5 Departmental caseloads

As the cases for the three different types of Building Control vary somewhat it is not possible to credibly compare them.

In the case of Local Authorities it was found that caseloads varied from 600 cases per year in West Somerset, to 9000 in Bradford per year. (Note that the number of cases can be recorded in different ways and therefore this may not be a true reflection of actual cases. Some record the number of applications and some the number of units and of course each application may cover a number of units.) Figure 4.4 represents the departmental caseloads for those Local Authority Building Controls interviewed.

On average the Local Authorities interviewed estimated that approximately 60% of the cases they handled were domestic, about one third of those being new dwellings i.e. one in five cases is a new dwelling on average.

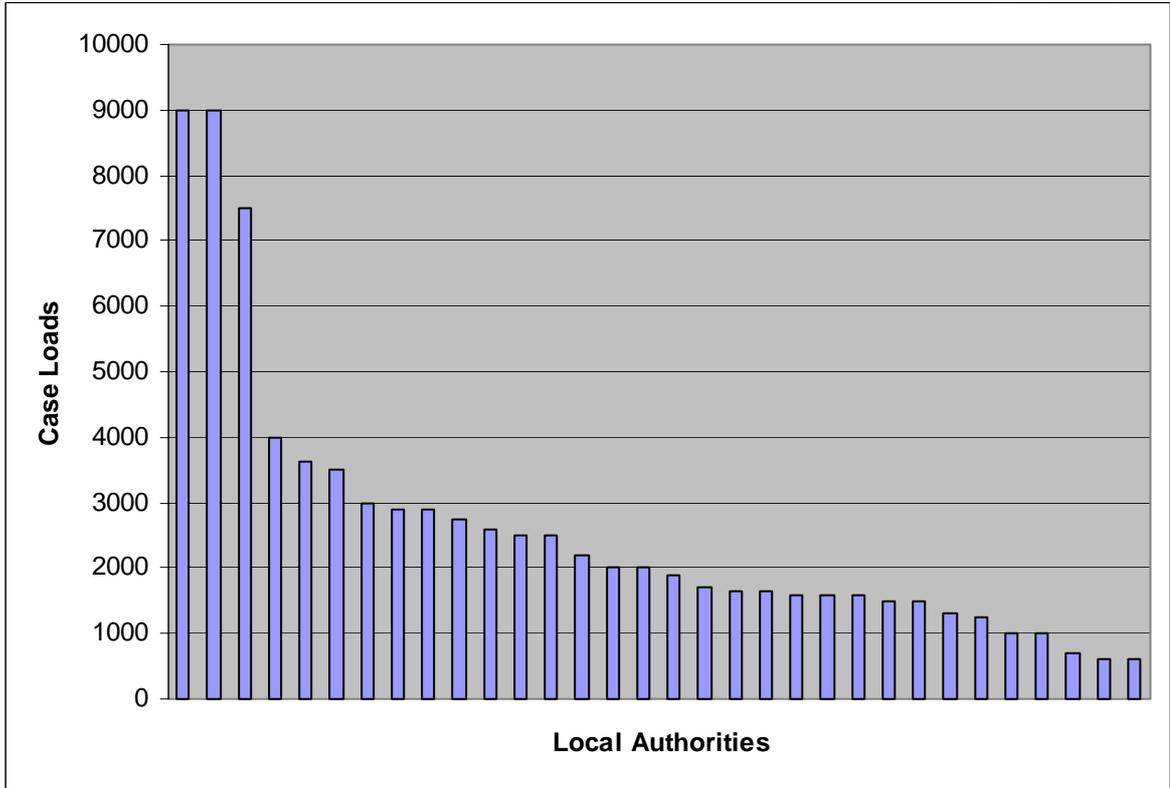


Figure 4.4 Local Authority Departmental Caseloads per year

Private company caseloads range from 100-5000 cases per year but these are mostly large commercial projects, such as schools. Domestic cases only make up 1-10% of the cases for those interviewed, as there is a tendency for them to be larger new housing developments.

NHBC Case load varied from 360 to 2200 dependent on the size of the department.

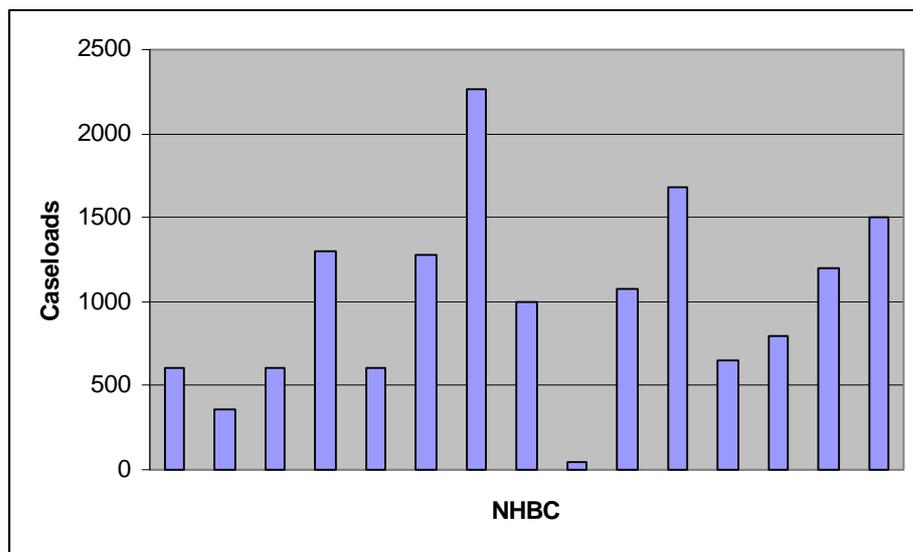


Figure 4.5 NHBC department caseloads per year

4.2.6 Average number of cases per person

For Local Authority Building Controls the cases per person range from 63 each in Portsmouth, to 300 each in Barking and Dagenham. This averages out at 185 cases per Building Control Officer. Figure 4.6 demonstrates the range of cases per person for Local Authority Building Control officers.

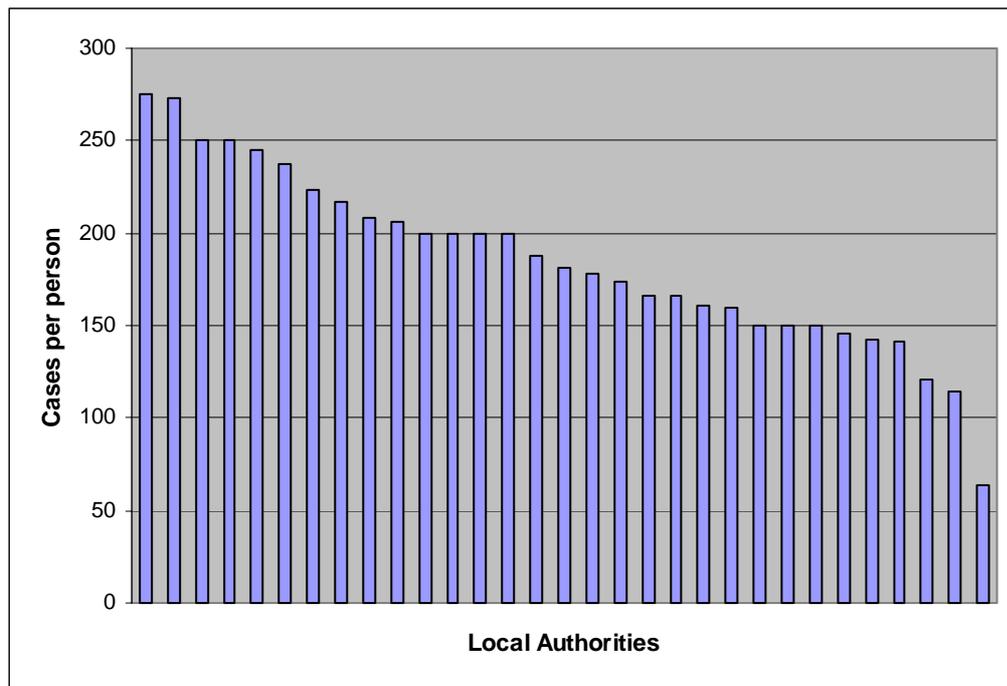


Figure 4.6 Local Authority Caseload per person

As most of the private company cases are large-scale cases it is not meaningful to compare their caseload per person to that of the Local Authority departments. However the Inspectors interviewed provided an average of around 160 cases per year.

Similar to the Private Approved Inspectors, NHBC Building Inspectors tended to deal with larger applications and therefore their number of cases reduced to - on average - 97 a year.

One of the differences between the two is that NHBC Inspectors look at sizeable domestic developments with a large number of units, whereas a Private Inspector will be looking a sizeable commercial developments as well as domestic.

4.2.7 Split of case load

It was noticeable that a larger proportion of the domestic applications received by Local Authorities were for smaller developments from 2-10 house plots. Some of the smaller private companies also worked predominantly on smaller projects such as barn or loft conversions. Larger developers tended to work with larger Private Approved Building Controls such as the NHBC.

4.2.8 Split on application route

In Scotland the law requires that builders be granted a Building Warrant before they can start work. Therefore all applications to Scottish Building Control come through this route.

In England and Wales, however, work may start before permission has been granted. The interviews showed that the majority of new dwelling developments are submitted as full plans, with a quarter to one third as notice. These tend to be the smaller developments.

In private companies the route to application depends on the size of the project. With large commercial projects the company may work with the client on the plans for months before the development starts. With some small cases they simply receive the notice.

4.2.9 Appreciation of the differences between the English and Scottish System

92% of respondents are aware that the Scottish and English regulations differ. Just over half of those individuals knew enough about the differences to provide details or express an opinion. Notably these individuals tended to be from the Local Authority sub group rather than the NHBC.

In Phase 2 more was asked of each officer's understanding of the differences and the advantages. **There was a general agreement that the system in Scotland was more effective because it was more stringent - but harsh - as the warrant must be achieved prior to construction. Some compared it to the old UK system, which only went through Local Authorities, with mandatory prescriptive standards.**

4.3 Compliance and Enforcement Powers

4.3.1 Non-compliant cases

75% of Local Authority interviewees claimed good compliance with the regulations but admit that compliance is never perfect. Some admit to there being unauthorised work that they don't know about, but due to time and resource constraints they can only judge the bits they see. As they are only required to visit sites at certain points of construction - such as drains and foundations - there are elements that they are unable to inspect.

In some cases the site inspections are treated as risk assessments rather than Building Regulations checks.

Private Approved Inspectors claim to be in a better position as they are able to be selective with the contractors they work with, leading to higher quality work and greater compliance (73% claim good compliance, with the remainder not answering the question). Several pointed out that some of their commercial clients have standards above the regulations.

4.3.2 Enforcement

On-site discussions with builders over non-compliance was a daily occurrence for 57% of Building Controls interviewed in Phase 1. Letters were also a popular means to gain compliance with 29% reporting their use. 18% of respondents in Phase 1 also reported withholding completion certificates as a successful method of gaining compliance. Solicitors asking to see certificates when the house is being sold helped this last approach.

One Building Control Officer noted that houses are in such demand, however, that they are sold before they are even built, making the withholding of the certificate futile. A couple of other officers admitted they would not withhold a certificate based on non-compliance with a Part L element. They would be happy to grant it as long as the building is structurally sound and fire resistant.

One of the main issues was the feeling of triviality if a completion Certificate was

withheld on a Part L requirement.

On the other hand, NHBC inspectors generally said that they would withhold Warranty Certificates if the property did not comply.

29% of the officers interviewed in Phase 1 expressly stated that they do not make full use of the powers they have available to them. In Phase 2 this question was expanded and uncovered that, in Local Authorities, the powers were viewed as weak and ineffective by 7 of the 8 interviewees

4.3.3 Letters

One of the main routes of enforcement is through letters of non-compliance to the actor in question. In Phase 2 we asked the question “How well are the letters received?”, to try to gauge the impact of the letters.

Figure 4.7 shows the perceived receptiveness of the builders on receiving a letter. The responses from the Local Authority and Private Inspectors do not show that there is any particular trend however a large proportion of the NHBC officers perceived that their letters were taken seriously especially from larger corporations. One of the reasons for this is that the working relationship that NHBC has with the corporations may mean that it has more influence, as it may deal with all its new developments on a national basis.

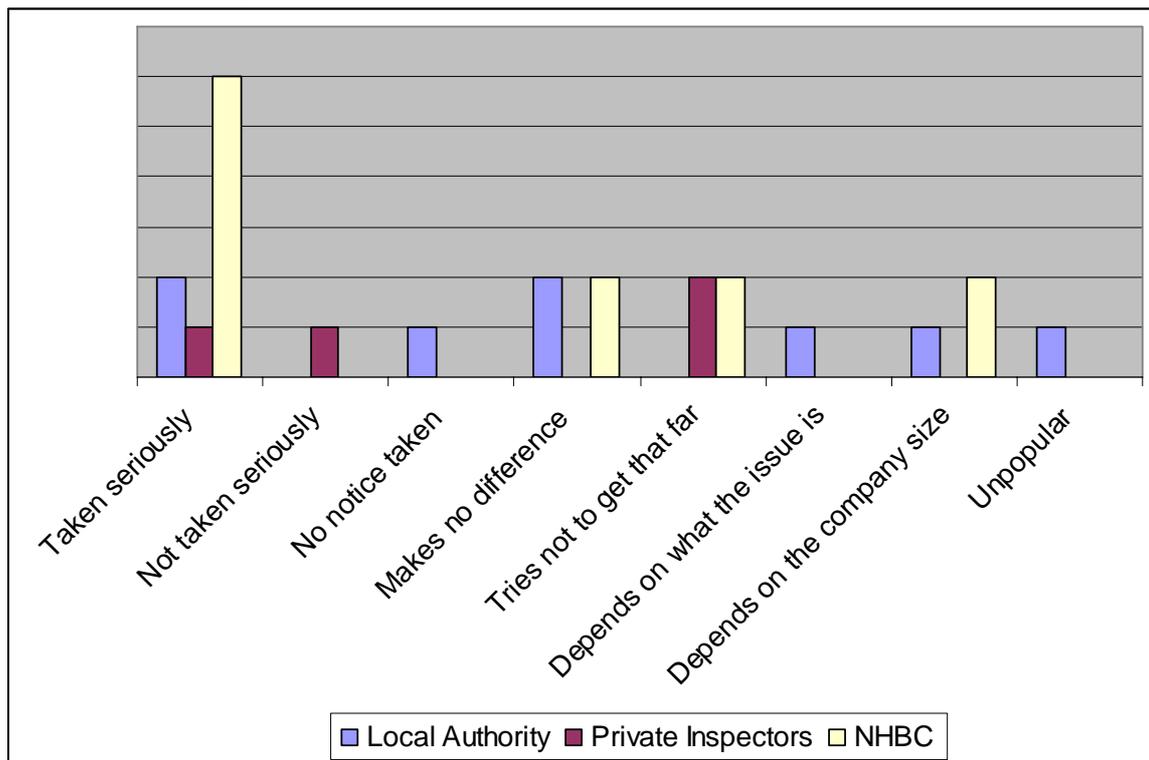


Figure 4.7 Perceived receptiveness of Builders on receiving a letter

4.3.4 Prosecutions

Further to this, it is rare for a Local Authority Building Control to go to court. In Phase 1 we asked ‘Approximately how often in the last year has your department felt it necessary to take

steps to ensure compliance?' to all interviewees. All but 5 of the interviewees explained that in the past they had taken steps towards prosecutions.

Where the topic was mentioned, non compliance reasons tended to be fire or structure and in some cases interviewees stated that they would not take anyone to court over a Part L issue!

The frequency of cases varied from 1 in 26 years to 5 cases in the last 10 years. Essentially the frequency of cases was perceived as being sporadic and only as a last resort in cases where the building was a serious safety risk.

Several departments explained that they don't have access to legal advice or support and therefore were unlikely to follow this route except in extreme cases. Another point was that even if court cases were to be successful the fine was so pitiful that it was meaningless. Therefore it was felt that fines are not proportionate to the cost of going to court. One authority had been to court on five occasions in the last 10 years and won none. Another has taken two cases to court, both of which resulted in such low fines that the officer dubbed them a waste of time.

In Scotland the interviewees explained that prosecutions under section 10 of their regulations are unlikely as the building warrant has to be granted before the building can be started, so they are unlikely to get into a situation where the building is so non-compliant that it is a serious safety risk.

In Phase 2 of the interviews we specifically asked the interviewees whether they thought the 6 month deadline for bringing legal cases was a long enough period of time. 7 out of the 8 Local Authority Building Control Officers said this was not long enough and more prosecutions would be taken forward if there were more time available. Overall 58% of respondents thought there should be more time.

Interestingly enough 10 of the 17 NHBC personnel interviewed thought that 6 months offered enough time! A few of them added that they had never had to deal with a prosecution but thought that it should be sufficient.

As Local Authority Building Controls are working in competition with Approved Inspectors they have to take more of a customer service approach than a hard line legal stance. This also makes legal action an undesirable option.

Private Building Control powers are less than Local Authorities. They cannot take legal action, just cancel their initial notice and pass the case back to the Local Authority. Many use this threat if discussions on site do not lead to compliance. This is usually sufficient. One Private Building Control Officer, however, suggested that there should be an independent body for enforcement. He was not comfortable passing non-compliant clients to his competitor for enforcement action. Therefore in the commercial world conceivably the successful Building Control Officer could be one considered the least stringent.

In Phase 2 further details on prosecutions were asked. Of the Local Authorities interviewed in Phase 2 two gave us details on their prosecutions. One had pursued 3 or 4 all of which were successful and the other 2 cases. Both explained that they only proceed if the case is watertight i.e. if there was no notification of the work, one gave the example of a Nursing home that was constructed without approval, however in that case the fine was only £13,000. This was then reduced down further on appeal to just £2-3000.

Whilst a simple case might take 2 man days of effort, the more complex cases could take weeks of the Building Control officer's time in addition to the legal support, therefore the cost of taking someone to court was quite onerous.

4.3.5 Referrals

Local Authorities hold the powers to prosecute and therefore Approved Inspectors have limited powers available to them if a building is non-compliant. If none of these powers ensure correction they have no other option but to refer the case back to the relevant Local Authority.

Of the Approved Inspectors interviewed in Phase 1 half of them admitted that they had referred cases back, two-thirds of them on a frequent basis.

In Phase 2 around a quarter of the NHBC Inspectors had referred cases back to the Local Authority with the following frequency:

- 1 reported 3 cases in two and a half years
- 1 reported twice in three years
- 3 separate interviewees reported 1 or 2 referrals

In most cases they explained that they would try and resolve the non-compliance issue in any possible way first.

4.3.6 What powers would Building Control Officers like?

An increase in the powers available to Building Control was not suggested by those interviewed, however, changes to powers were. A couple of interviewees suggested that England and Wales should consider adopting the Scottish system of issuing Building Warrants before work can start. Some other officers wanted the same powers as planners: powers to stop work if non-compliant. However, they were not all sure they would use the power due to the responsibilities that come with it.

There was disagreement over whether issuing fixed penalties to builders would work. Some respondents wanted them, but some didn't think that this would be beneficial.

Most thought overall that their powers were fine - but wanted more time and resources to implement them.

Three of the Approved Inspectors thought they should have equal powers to Local Authority Building Controls but that these should be modernised as the current legal route is outdated.

4.4 Training, Communication and Quality Control

4.4.1 Communication between Chief Building Control Officers

In Scotland communication is through the Scottish Association of Building Standards Managers (SABSMAN), which is a professional network for dialogues, run in partnership with the Scottish Building Standards Agency (SBSA).

In England and Wales such communication is through the Local District Surveyors Association (LDSA) and through local area forums, for example, the West London Forum or on a regional basis such as Oxfordshire where the Chief Building Control Officers meet on a bi-monthly basis.

One interviewee mentioned the existence of a council partnership for training, etc.

Private companies communicate within regional offices and through the ACBI meetings as well as meeting at Regional RICS and ABE.

NHBC hold manager meetings on a monthly basis and company working groups.

4.4.2 Communication between Chief Building Control Officers and Industry

92% of Building Control Officers reported some form of communication with industry. Many Local Authorities hold seminars for architects, builders, etc. to keep them up to date with regulations. Some talk to solicitors, local colleges and the chamber of commerce about regulation changes. Most get involved with ABE and RICS for training courses.

Similarly Private and NHBC interviewees talked to industry and associations such as the House Builders Federation.

4.4.3 Communication between Building Controls Departments

This appears to be mainly via Building Control Officers at principal level. Some further contact occurs at training courses.

4.4.4 General training given

Training for new staff depends on their previous qualifications and experience. Not all Local Authorities take on trainee Building Control officers, however almost 40% of those interviewed stated that their departments support trainees through College / University qualifications on day release. They then work towards RICS professional qualifications. On-site shadowing and practical hands-on experience is also gained through the work place.

For ongoing training a mixture of internal and external training is reported. In most cases one or two members of the department are sent on external seminar courses and then feed back the information to others in their departments via internal seminars or word of mouth. Some authorities put on seminars for local developers to keep them up to date on changes to the regulations.

A couple of individuals expressed concern about the lack of training available due to financial barriers or corporate culture. In these cases it is left up to individual officers to read up on changes to the regulations and familiarise themselves with them. This is not always possible, however, due to time constraints and the individuals believe they are disadvantaged as a result.

Other authorities demonstrated a commitment to Continuing Professional Development (CPD), sending individuals on Local Authority-run management and training workshops or European Driving Licence courses.

The Private Building Control Officers interviewed demonstrated high levels of commitment to training, with a number having internal training bodies responsible for keeping them up to date with regulations through internal seminars and newsletters.

The NHBC use internal presentations and monthly meetings to keep staff informed. As mentioned earlier, they have established a training academy for new recruits. One interviewee highlighted the use of quizzes to test the knowledge of all officers on different parts of the Building Regulations. This is done approximately once a month and involves a member of the department studying the regulations and making up a quiz for the remaining team members.

4.4.5 What and who provided Part L training for Part L 2002

A mixture of external and internal training was reported. When asked less than half the number of officers interviewed chose to go to an external Part L event. In those cases where a member of the department attended an externally organised seminar/ workshop these were provided by the RICS and ABE. Key individuals were sent and the information cascaded down. Two interviewees reported training by the Corgi and another by a manufacturer.

There was a disagreement between the officers interviewed on the training offered for Part L. Those who had received external training for Part L 2002 were dissatisfied and wished for additional in house training. Those who hadn't been provided with in house training were unhappy being left to try and interpret Part L by themselves.

4.4.6 Condensing Boilers notice April 2005

Whilst the Condensing boiler rule mainly affected competent persons, there appeared to be dissatisfaction amongst Building Control Officers with the level of information and training surrounding the boiler notice.

There was a general feeling that there was little dissemination amongst Building Controls that they were left to familiarise themselves with the changes via personal reading of literature/ websites. A few interviewees reported internal briefing notes being circulated. Many also noted that the information was released too late in the day.

4.4.7 Generally is the training on offer sufficient?

There was disagreement among the interviewees as to whether training on offer was sufficient. Many believed training was sufficient but was targeted at the wrong level, or that not enough time (or money) was allocated to allow people to attend. One individual believed more could be gained from working through the regulations on his own than at a one-day training event on such a dry subject. A number expressed the view that more benefit could be gained by simplifying the regulations.

Those who thought training was insufficient (29% of those questioned) wanted more local training courses and more advance notice.

One individual expressed short notice as a problem because his small rural council has one training budget and staff from all departments have to bid for funding for training (This highlights the issues associated with the supposed 'ring fencing' of Building Control finances).

Another expressed the view that one day of training was insufficient to grasp such complex regulations, that more specialised training is necessary.

4.4.8 Training suggestions

As shown in Figure 4.8, practical workshops were a popular idea. The majority of interviewees wanted hands-on interactive training that provided them with answers to questions and shows them practical examples on how you would, interpret the regulations, build it, design it, cost it, manufacture it, etc.

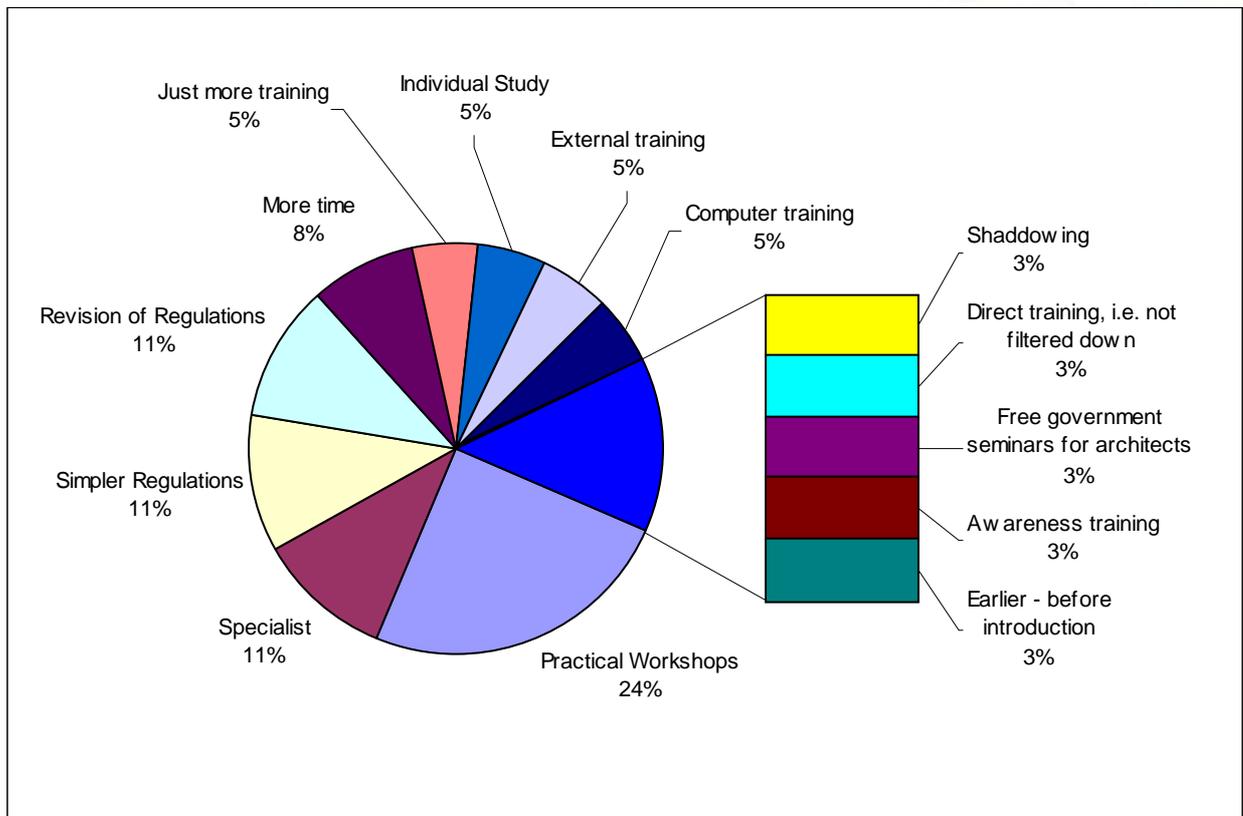


Figure 4.8 Training Suggestions

One interviewee suggested a formal national training regime that more staff could attend more regularly. Another suggested that the Office of the Deputy Prime Minister should provide affordable specialised training rather than website addresses.

The main suggestions were, however, that regulations should be simplified, more time should be made available for training on new regulations and revision of old regulations and that external seminars should be affordable and available locally.

4.4.9 Quality Control

In Phase 2 additional questions were asked about ensuring quality control.

Local Authorities in Scotland seem to have a system through the SBSA. This is a scorecard covering training and throughput. Scottish interviewees also reported council audits as a possible mechanism, however they felt that there was no feedback following such inspections.

In Local Authorities in England and Wales, ODPM can be contacted for technical queries. However no single answer was the same. Some departments had introduced a checking system, others relied on training and monthly meetings to discuss interpretation and consistency.

The Private Approved Inspectors again relied on company methods of checking and signing off.

The NHBC were the only interviewees to claim have to having their own national system. As mentioned earlier, PDAs are used to record inspections. Data is then collected from these

devices and used to check they are meeting Key Performance Indicators. They also have a technical 'consistency matters' manual and regular circulars to ensure consistency.

4.5 Part L1 (2002)

4.5.1 Part L - current priority ranking

The vast majority of Building Control Officers, irrespective of which sector they worked in, said that Part L was not a priority for builders as it was not a Health and Safety issue. Many of these officers agreed with this priority rating.

One interviewee stated that no one has ever been sued because a house is expensive too heat.

4.5.2 Views on future priority for Part L

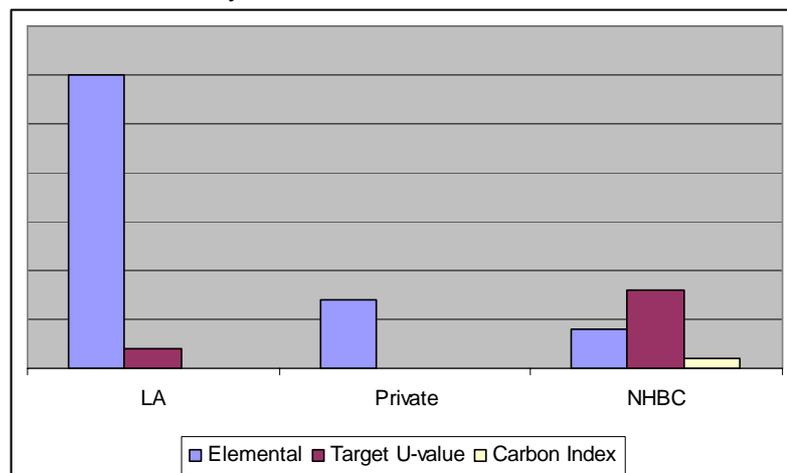
Interviewees either thought that the current ranking of Part L was accurate or that it should be slightly higher. Reasons for it not to be considered a higher priority included the view that it is too complicated, and difficult to justify to builders.

One Private Building Control Officer noted that in reality proportionately there are very few deaths associated with even the life threatening Parts of the Building Regulations, but Part L has a global benefit and so should be considered an equal priority. However this was clearly a minority view amongst the Building Control officers consulted.

4.5.3 Method of compliance for Part L

87% of Phase 1 interviewees said the elemental method was the most common in dwellings. Two said carbon index was used as a second check if elemental failed. The remainder chose the target u-value method.

Figure 4.9 below shows a summary of the typical compliance route responses from interviewees over both Phases of interviews. It should be noted that the most popular route for Local Authorities is through the elemental method however for NHBC the target U-Value becomes the most popular route. One of the possible reasons for this is the typical size of development that a Local Authority would tend to deal with.



4.5.4 Compliance levels

Building Controls perception of compliance levels vary greatly across the country. For example, in Phase 1, one authority claimed 95% non-compliance and another 90-95% compliance.

These estimates made by Building Control Officers are on issues that are detected - not on issues that are not detected (as they are not visible) or areas which tend not to be inspected.

It was perceived that overall compliance at the design stage is good, and that it is on-site that problems start to arise. It was also noted that this is widespread but particularly an issue with extensions and conversions.

Commonly quoted problems include local building merchants not stocking the insulation materials specified in the plans so builders buy an alternative with different U-values and don't understand the difference. A breakdown of the reasons given for non-compliance are shown in figure 4.8 below.

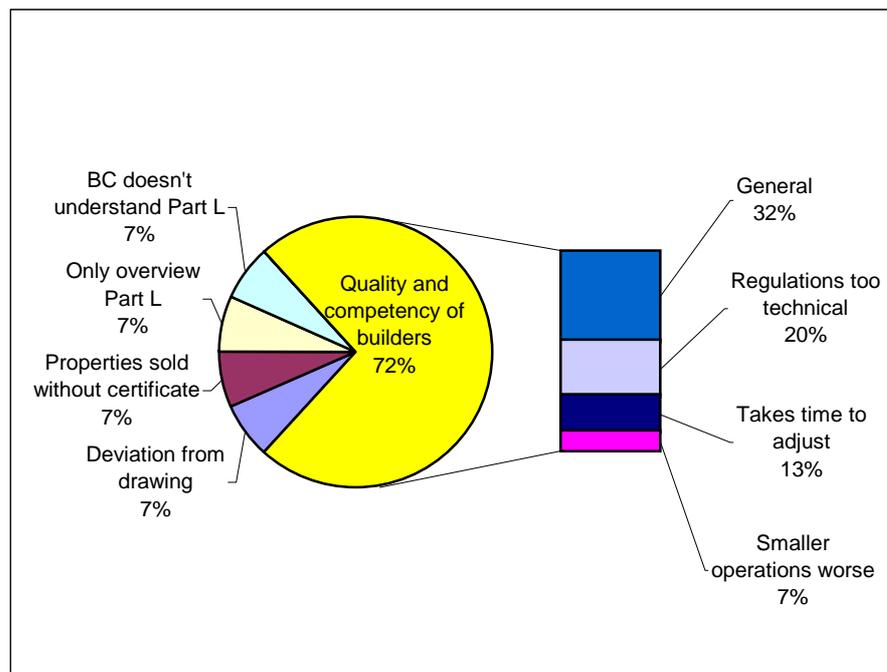


Figure 4.8 Phase 1 reasons for non-compliance

4.5.5 Suggestions for improving compliance

Many suggestions were made on how compliance could be improved, some looking at the Building Control system and others looking to the building industry as a whole.

It was suggested that more time should be spent educating both the public and those who work on site (builders, etc). The public need to understand that energy efficiency measures costs builders more money to implement and these costs are therefore reflected in the sale price. The builders and developers need to understand the possible options available to them and that they will not be penalised financially for investing in energy saving measures, for example energy efficient light fittings.

It was also noted that Builders must understand the Part L requirements and the reasons for them as Building Control Officers cannot be on-site at all times to ensure compliance.

Popular responses included “providing more training for builders or designers” and “simplifying the regulations would be beneficial”.

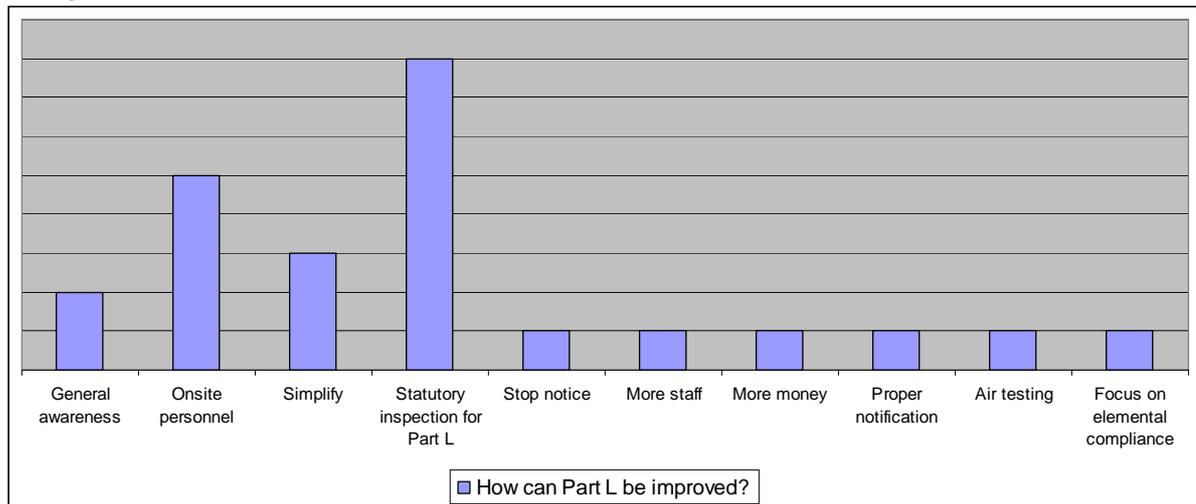


Figure 4.9 Suggestions on how Part L compliance can be improved

The most popular suggestion was that there should be an increase in statutory inspections, three interviewees suggested making ‘insulation’ a statutory inspection. However this would have an effect on the current building control system, increasing the number of statutory inspections would mean departments needing to plan less cases per member of staff and an overall increase in each case’s cost and staffing.

4.5.6 Additional Inspections

In Phase 2 of the study we asked interviewees whether they felt there should be any additional statutory inspections. Of those interviewed in Phase 2 over 60% of Local Authorities and 50% of Private Approved Inspectors thought there should be. Two further Local Authority officers highlighted staffing and resource issues as preventing this happening.

Alternatively 40% of NHBC interviewees stated that they thought that additional inspections were required. It was their perception that NHBC and private companies automatically visit sites more regularly than Local Authorities do. This is due to the tendency for NHBC and other private inspectors to only deal with large developments where they inspect more than one dwelling.

This was confirmed by one Private interviewee who thought that Local Authorities should do more inspections per site.

Therefore if an additional inspection were to be introduced it would have little effect on their existing procedures, this however this does not mean that it would not be of benefit.

4.6 Common areas of non compliance

4.6.1 Recurring areas

As shown in Figure 4.10, thermal bridging is the most frequently cited area of non-compliance. Conservatories, u-values of constructional elements, internal lighting, and windows, doors and rooflights closely followed these.

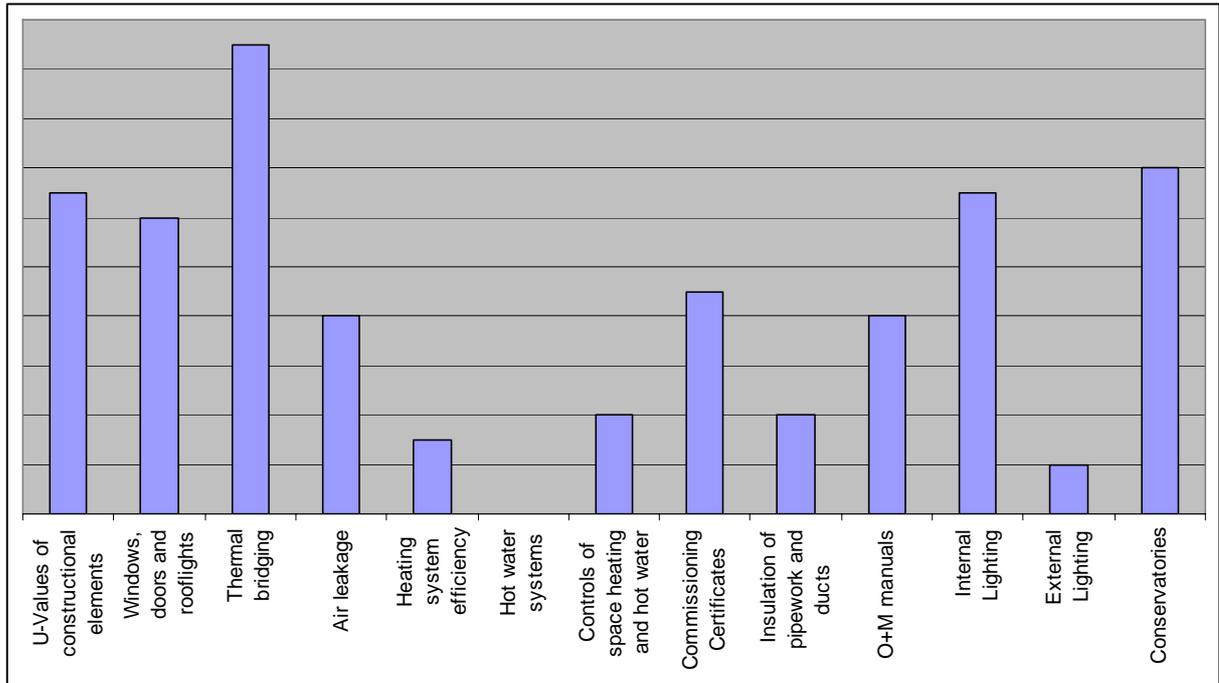


Figure 4.10 Recurring areas of non-compliance

It can be seen from Figure 4.11 that a similar trend is observed throughout the three Building Inspector categories.

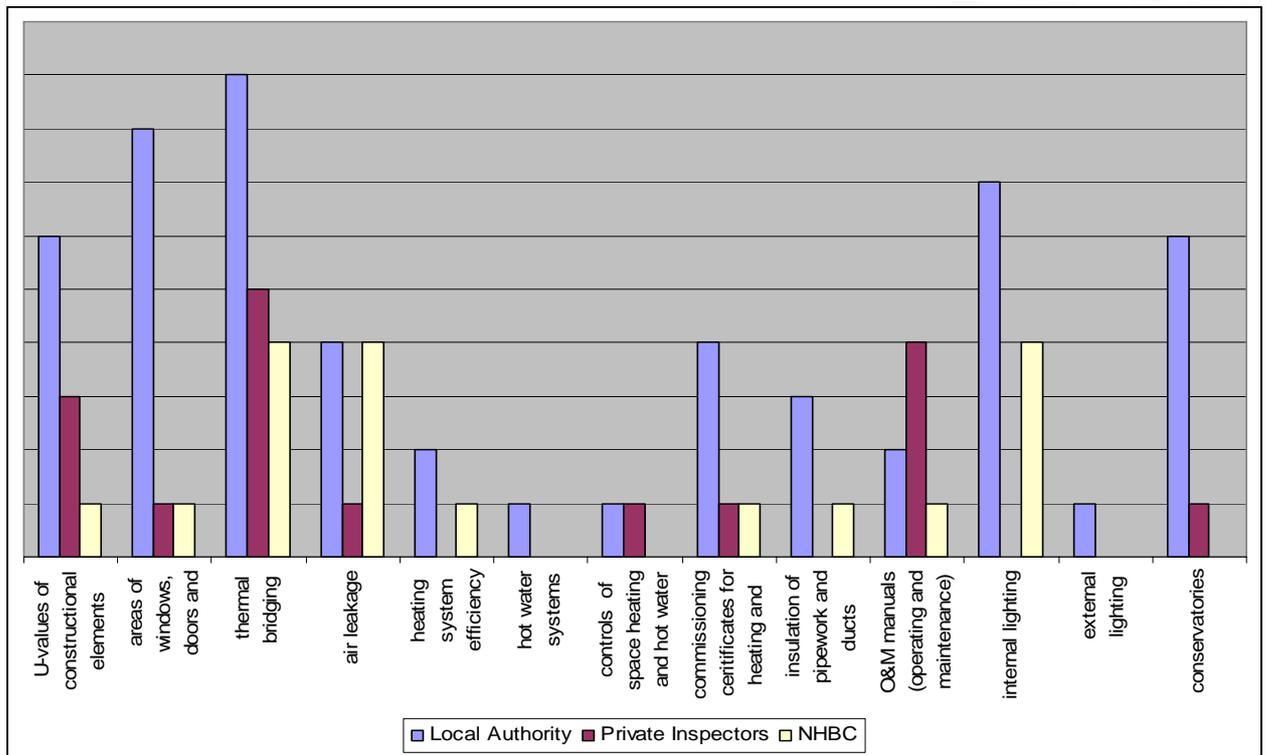


Figure 4.11 Recurring areas of non-compliance split to Building Control disciplines

4.6.2 Reasons for non compliance and responsible professions

The following table provides details of the common causes and reasons for non-compliance stated by Building Control officers. It also highlights those thought responsible for each of the technical areas.

Technical Area	Cause of non-compliance	Reason for non-compliance	Responsible Actor
U-values of constructional element	The main issues with this element regarded the wrong thickness or type of insulation element.	This relates back to the point already raised about inferior products still being available in builders merchants for reduced rates and the builders lack of understanding about why certain thicknesses / products have been specified in the plans.	Architects for specifying the wrong materials Builders for procuring the wrong materials Builders Merchants for providing insufficient information on the correct insulation products to use.
Areas of windows, doors and rooflights	There is a tendency to try to install more than the 25% of the total floor area	Lack of understanding. Some respondents explained that there is also some	Many Architects don't understand that there are ways to satisfy the regulations without

Technical Area	Cause of non-compliance	Reason for non-compliance	Responsible Actor
	allowance.	conflict between Building Regulations and Conservation areas planning requirements.	reducing glazing.
Thermal Bridging	Causes of thermal bridging were inappropriate insulation around windows, openings and reveals or rubble in wall cavities. Also, the use of brickwork on an inner leaf and poor workmanship that doesn't achieve standards portrayed by the plans.	Poor workmanship, ignorance, cost cutting and lack of understanding of products or of the reasons for the regulations.	Architects are responsible for specifying construction details and seeing that the builder constructs to their specification. Builders take on the responsibility to build to these requirements. Site managers are responsible for the workmanship on their site.
Air Leakage	This is rarely tested for and therefore difficult to certify. Where it is tested, problems occur around ceilings – pipes need to be insulated before going into lofts.	Poor Workmanship and a lack of quality assurance – not building to the required construction details.	Builders and Site Managers
Heating System Efficiency and Hot Water Systems	This is an interesting area as the heating system will tend to be installed by a competent person who will be accredited to self-certify the boiler installation. Because of this Building Controls tend not to check heating and hot water systems for compliance.	Ignorance on behalf of the builder not installing as specified but lack of knowledge on behalf of the Building Control not looking out for compliance.	Heating engineers, Builders and Building Controls.
Controls of space heating and hot	Similarly a competent person	As above ignorance and lack	Heating engineers, Builders and

Technical Area	Cause of non-compliance	Reason for non-compliance	Responsible Actor
water systems	may well be involved in the installation of the controls systems so the Building Controls do not check for compliance.	of knowledge on behalf of the Building Control officer	Building Controls
Commissioning certificates for heating and hot water systems	As with O+M manuals these are rarely seen or asked for by Building Control Officer. The blank forms are sent by manufacturers, all the builder needs to do is fill in the detail.	They forget.	Builders are responsible for ensuring that the mechanical contractor carries out tests on the pipework, certificates completed and inserted into the O and M manual.
Insulation of pipework and ductwork	Building Controls struggle to detect poor insulation in areas which are inaccessible at completion and are not required to be visited on-site prior to this check.	Cost saving, ignorance and lack of understanding on behalf of the heating engineer and builder means that pipework is poorly insulated. In many cases the task is not allocated to someone so it goes undone.	The builder is responsible for checking that heating engineer has installed insulation correctly. Site agent.
O and M manuals	The Building Control Officer is likely to have completed his inspection prior to actual completion and handover therefore he is expected to provide the certificate before the manuals are completed.	Ignorance and lack of will. Those that are seen tend to be a collection of manufactures booklets with no extra efficiency information, just very basic usage information. Completion is often held up by sub-contractors who are responsible for writing the material.	Architect and Builder must ensure that these are completed and handed over to the client prior to final sign off. Site Manager.
Internal lighting	The main problem here is that energy	There are two key issues associated	There is a need for more economic,

Technical Area	Cause of non-compliance	Reason for non-compliance	Responsible Actor
	<p>efficient light fittings are not viewed as being as attractive as ordinary lighting, e.g. spotlights, which could be due to a lack of awareness of the products available. Therefore lighting is only installed if requested in many cases and placed in low usage areas such as cupboards or toilets.</p>	<p>with the installation of lighting. Lack of knowledge of the products available and market forces, in that the contractor is always going to price and install the cheapest possible fitting and secondly that the future owners are not going to want to look at an unsightly fitting. Builders want to install features that will sell the house so (sometimes despite what the plans say) Building Controls direct them to fitting their lighting quota in garages and cupboards in order to comply. Where fittings are put in, many are removed by owners when they move in.</p>	<p>more aesthetically attractive products to match the rather unsightly ones which are on the market at the moment. Therefore the actors involved here are Builders, Builder's merchants and suppliers and manufacturers.</p>
External lighting	<p>Controls not installed properly therefore lighting on all the time.</p>	<p>Ignorance and cost saving on behalf of the builder and electrician</p>	<p>Builder and electrician</p>
Conservatories	<p>Lack of separation between the main house and the conservatory</p>	<p>Lack of understanding, ignorance and market pressure. Although many are exempt there are always problems with people wanting the conservatory to be an extension of their lounge.</p>	<p>Architects and Builders to make sure that their design or building meets requirements.</p>

The table above clearly shows that in many cases the builder is directly responsible for non-compliance. Common reasons cited are cost saving, ignorance or lack of knowledge. Other responsible actors include Architects, Site Managers, Electricians and Heating engineers.

It also highlights the enforcement gap that has appeared between self-certification schemes and Building Controls. There appears to be a misconception that Building Control Officers do not need to check the work of a competent person during the construction of a new dwelling. However if the whole dwelling has been put under a Building Control Notice the compliance and certification route goes through the Building Control Officer.

4.6.3 Company demographics

In 54% of cases it is small builders or DIY builders that do not comply (see Figure 4.12).

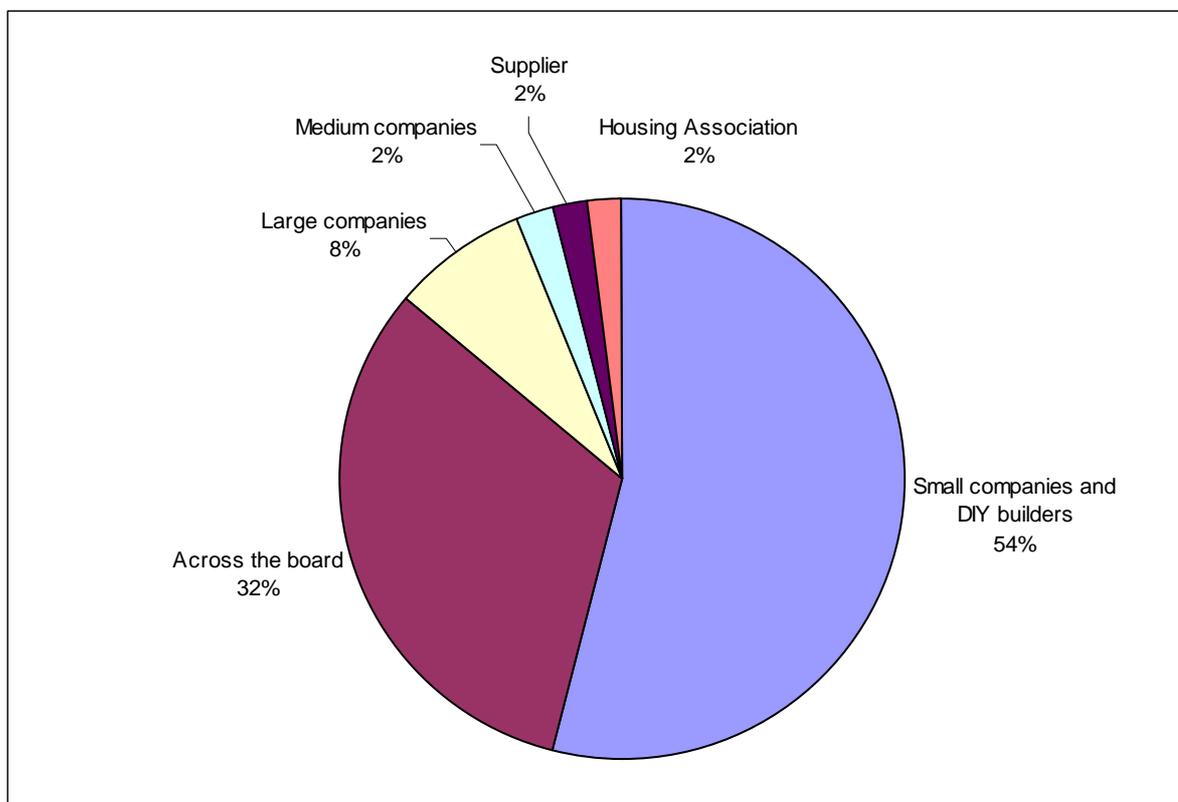


Figure 4.12 Common repeat offenders

In these cases it is mostly a case of lack of awareness or understanding of the requirements, short timescales or cost cutting.

4.6.4 When non-compliance is detected.

This section is split down into two elements, non-compliance detected during a full plans application or non-compliance detected on site.

If an area of non-compliance is noticed on the plans they will highlight it to the architect/designer and request a change. In most cases, where noticed, compliance is requested and gained.

On site, any area on non-compliance should be highlighted and discussed with the builder. This is done in most cases, however some Part L features are rarely checked, for example controls on heating systems because Building Control officers are not sure what they are looking for or O&M manuals which can be completed after the completion certificate is given. Also, where problems have been identified, for example, non-compliance with energy efficient lighting requirements, not all Building Control Officers will double check that compliance has been gained.

This system is different for the NHBC. When a problem is detected on site the inspector requests that the site manager looks at it and ensures that he understands what is wrong and how to rectify it. Each onsite inspector has a handheld PDA on which they record the error. A copy of the error report is printed off and put into the site diary. The site manager then has the responsibility to ensure that the problem is rectified. Once it has been, he must sign the entry in the diary to say that he has checked. If the inspector is suspicious that the builder will not comply then he will request a re-inspection. If the site continually fails to comply, they will be entered into the 'worst 4 sites' sheet. At this stage the inspection manager will get involved.

During Phase 1 a potential gap between the Building Control Officers inspections and the competent persons scheme was identified, where in some cases Building Control Officers were not inspecting any Part L elements to do with the wet services, such as heating, hot water, commissioning, controls and insulation claiming that they were covered by the competent person. Therefore in the second phase of interviews the interviewees were specifically asked if they checked out these areas. Over 70% of the respondents said that they didn't check these areas as they would be covered under one of the self-certification competent persons schemes.

4.7 Industry

4.7.1 Understanding of Part L(2002)

Levels of understanding are perceived as being low. This is due to the complicated technical nature of the regulations. Some believe that Mechanical and Electrical engineers at the top end of the market understand, but others think even they struggle. Builders and builder's merchants were highlighted as having particularly low levels of understanding. One interviewee pointed out that training helps apprentices to understand therefore it should be expanded to include all trades persons.

4.7.2 Technical and practical problems

The current format of the regulations is one of the practical problems identified – it takes time to learn the regulations and how to comply and the on-site operatives do not always have the time or capability. One interviewee stated that the Office of the Deputy Prime Minister has a low understanding of the pressures on small builders who just don't have the time to read all of the regulation documents. Gaining access to all the documents referred to in Part L is also a problem.

Whilst ODPM have taken the decision that the Building Regulations, Part L in particular, should be more descriptive rather than prescriptive this study indicates that Industry may in fact prefer prescription.

Secondly it has been pointed out that there can be issues associated with gaining access to all the documents referenced, this may become more of an issue as Part L (2006) goes down this route.

The construction industry is slow - and reluctant - to change and with regulations changing so rapidly it is hard for them to keep up. The “bedding in” time required for Builders to familiarise themselves with a new Part L, incorporate the requirements into their new developments and complete them means that they can find themselves just getting to grips with one set of regulations and they change. This implies that there could be a growing gap between practice and regulations. This issue was highlighted by many Building Control Officers during their interviews.

As the regulations change products and requirements on the market need to react. Whilst new products or differing widths of insulation become available, products that may be non-compliant can still be available at Builders Merchants. These products are often cheaper and are bought out of ignorance or as part of a cost cutting exercise.

4.7.3 Attitudes

There is some disagreement between interviewees on industry attitudes to compliance.

Approximately two thirds perceive that the industry does have a responsible attitude, however some qualify this with comments such as: “*it’s not a top priority*”, “*responsible builders do*”, “*site compliance could be better*” or “*they try their best*”.

The remainder do not think a responsible attitude is taken with one saying: “*L is seen as a low priority*” and another that “*conversions have low compliance*”.

4.8 Additional Questions

4.8.1 General

The review workshop with industry members held on 24 February 2006 requested that further questions should be asked of those already interviewed. This section contains the results of those additional discussions. Details of the questions asked - and our approach - are provided in Section 3.4 and Appendix 1.

4.8.2 Determining a suitably qualified certifier as required under Part L (2002)

In response to this question there was a general consensus amongst the 43 interviewees that a suitably qualified certifier meant a “competent person”. Thirty-nine said that – for example - a CORGI qualified installer could cover installations. Of those thirty-nine, ten also added that a HETAS installer would be qualified to certify a solid fuel installation and nine said that an OFTEC installer would similarly be qualified to certify an oil installation. A breakdown of the responses given is shown in Figure 4.13.

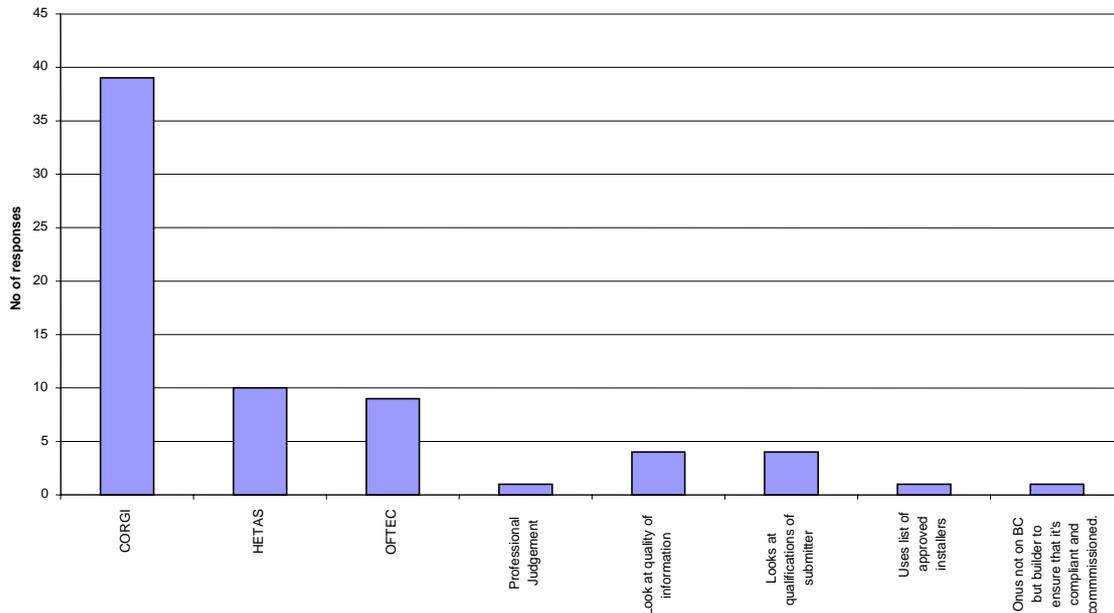


Figure 4.13 Who Building Control considered to be a suitably qualified certifier

Other responses to this question included looking at the qualifications of the submitter and the quality of the submission and installation. One Building Control Officer had an approved installers list that they had developed and used in conjunction with competent persons qualifications. Only one respondent felt that responsibility fell to the builder to ensure that the heating system was compliant and commissioned - and therefore did not carry out a check on the certifier or installation.

4.9.3 Legal Liability

We asked BCOs what their perception was of the legal liability for a property once a completion certificate was awarded. There was clear agreement amongst respondents that liability lies within a responsibility “chain”. In the first instance a homeowner – who may not have any direct contact with the BCO – would raise issues with the builder. In turn the builder would - if required - take up issues with the Building Control Officer.

There was agreement that the Building Control Officers’ liability could only be applied to elements that were visible, providing that they had attended site to a reasonable level. **BCOs also stated that their liability was only associated with health and safety - not economic issues, such as economic loss.** One Building Control Officer went as far as to say that, due to this, they would not be liable for elements such as poor insulation. Out of the 43 interviewees, four quoted the landmark case of *Murphy v Brentwood*, within which it was established that Building Control liability relates to health and safety issues rather than to economic implications.

Whilst the 13 NHBC officer responses were in line with those from their Local Authority colleagues, in several cases they added that the NHBC has a further responsibility, associated with the 10-year guarantee issued on the completion of the dwelling.

5 SUMMARY OF FINDINGS

This series of interviews with Local Authority and private sector Building Control Officers has provided a wide-ranging insight into the regulatory aspects of domestic construction, in particular the approach to – and conformance with - Part L1 of the Building Regulations.

The following text provides a brief summary of our findings and analysis:

- **Initial Contact**
 - 43 Building Controls Officers contacted in Phase 1, 31 interviewed
 - 46 Building Controls Officers contacted in Phase 2, 28 interviewed
- **Initial Reaction**
 - Many building control officers were too busy or unable to spare time to complete a 45-minute interview, as in some cases Part L was not seen as a priority.
 - Of those that were interviewed, the largest proportion were happy and interested, others were indifferent or unconcerned about Part L.
- **Local Authority Building Control Departments / Building Control Companies**
 - **Some Local Authority Building Control Departments are not in full control of the revenue that their work is generating. This means that they may be restricted in recruitment and training of staff;**
 - Recruitment for LA Building Control staff is difficult in some areas;
 - Local Authority Building Control officers have a high case load;
 - Private Building Controls do a small proportion of domestic work but choose the projects that they will do;
 - NHBC work with all the larger major developers on large scale developments;
 - **There is a tendency within some building control teams to have some specialised officers, however there is a distinct lack of officers who have specialised in Part L i.e. energy efficiency or building services;**
 - Local Authorities appear to have the highest caseloads, but the case size tends to be smaller;
 - **The officers interviewed appreciate the differences between the English and Scottish systems and indicated that they perceived it as more effective.**
- **General Compliance Levels**
 - General Compliance levels are thought to be quite high. However compliance with Part L is thought to be one of the weaker areas;
 - The enforcement powers and influence that each sector has available differs;
 - Local Authorities will write letters, refuse completion certificates and have the powers to take to court though this is rarely used due to costs and time restrictions
 - Private and NHBC can write letters and refuse completion certificates and have a greater influence on national companies, they can also refer cases back to the Local Authority.
 - These powers are only used if other means such as gentle persuasion is not working;

- **There was a feeling amongst some officers that the inspections are treated as a risk assessment rather than a Building Regulations check;**
- **There was a feeling of TRIVIALITY where officers will not enforce refuse completion certificates or prosecute on a Part L issue.**
- There was disagreement amongst interviewees as to whether additional powers such as fixed penalties were necessary, **however a large proportion of the Local Authority Building Controls agreed that the 6 months statutory time available was not sufficient and that a further 6 months would provide a more suitable time scale;**
- Several Approved Inspectors wanted enforcement powers as they felt uncomfortable handing cases over to their competitors the Local Authority Building Controls. **This has created a lowest denominator environment where in the commercial world the successful Building Control Officers is the least stringent;**
- **Training, Communication and Quality Control**
 - Communication between Building Control departments exists at the Chief Building Control Officer level;
 - Communication between Building Control departments and companies, and industry is carried out at a local level, as well as nationally;
 - Local Authorities and the NHBC provide training for new starters;
 - Ongoing training is provided in a number of forms, through RICS and ABE, as well as industry providing seminars on new products and technologies available on the market;
 - There was a high level of dissatisfaction with the training and information dissemination provided for the new boiler rule;
 - Desirable additional training was seen to include simple practical training, through active sessions or self-help through websites;
 - Scottish Building Controls have a quality control system through the SBSA;
 - **In England technical queries are covered by ODPM but there is no central quality control system.**
- **Part L1 (2002)**
 - **Part L was low in the priority ranking for many Building Control departments as it was seen as “not life threatening”;**
 - Compliance was poor compared to other elements of the Regulations;
 - In the case of a non-compliant element, Building Control officers were unlikely to take steps to ensure enforcement or withhold the completion certificate;
 - Small companies and DIY cases appear to be a larger proportion of non-compliant cases. However this is still a small percentage of the total domestic market;
 - **It was suggested that additional statutory inspections should be carried out for some of the part L elements such as insulation and thermal bridging.**
- **Technical hot spots**
 - Thermal bridging was shown as the worst area of non-compliance. Other significant non-compliance areas included conservatories, u-values, areas of windows, doors and rooflights, internal lighting, commissioning certificates, O&M manuals and air-leakage;

- Much of this non-compliance was due to onsite cost cutting, ignorance and a lack of knowledge;
- The actors most responsible for this non-compliance were the building contractors themselves, but architects, heating engineers and electricians were also thought to play a role;
- **It was also apparent that an enforcement gap has formed between the competent persons scheme and Building Controls for the heating and hot water requirements;**
- **Industry**
 - The industry is perceived by Building Control officers as struggling to understand the need for energy reduction in buildings;
 - The supply chain has a role to play in ensuring that properly compliant products are provided;
 - **The construction industry is resistant to change and there is perceived to be an increasing gap between skill levels and the demands of regulations;**
 - **It was perceived that the Building Regulations were too complex for many parts of industry and access to all the supporting documents was difficult;**
 - **It was felt that the descriptive nature of Part L added complexity.**
- **Attitudes**
 - The general perception is that there is a need of attitude change to ensure that compliance is improved both, within Building Control and the construction industry itself.
- **Suitably Qualified Certifiers**
 - Building Control Officers overwhelmingly look for a CORGI, HETAS or OFTEC installer as a suitably qualified certifier for the relevant elements of Part L (2002)
- **Legal Liability**
 - There is perceived to be a chain of liability that starts with the homeowner, and finishes with the Building Control Officer, with the builder and subcontractors in the middle.
 - Building Control Officers perceive that they are not liable for economic issues. However they consider themselves liable for Health and Safety issues, and also if the error is visible and it is perceived that the Building Control Officer did not inspect the site on a regular basis as laid out under the statutory requirements.

6 RECOMMENDATIONS

Analysis of the interviews found that there were issues arising within both the existing Building Control system and the wider industry. Therefore it is clear that there are barriers to be overcome in both these areas, some are associated with the existing systems and statutory requirements others from existing attitudes. Whilst the project initially set out to look at the technical areas and issues, the final recommendations are split into the following:

- System changes
- Attitude changes
- Training, skills and quality control changes

6.1 System changes

Scotland V England and Wales It is perceived that the Scottish system is far more successful than the England and Wales system. There are two key differences:

- the Building Warrant Certificate issues prior to building commencement; and
- that all Building Control officers are still attached to the Local Authorities.

The certificate means that all plans and issues must be agreed prior to commencement and therefore it is only on-site non-compliance that becomes an issue. The choice of compliance route adds complexity and has created competition between different Building Control Officers.

It is recommended that the current notification routes be reconsidered and the full plans notification route be adopted for all new developments in England and Wales. Secondly – in the medium term - a rationalisation of the current Building Control System should be considered to remove any potential issues arising from competing systems i.e. Local Authorities and Approved Inspectors.

Additional Inspections One of the key issues with compliance is actually being able to see the elements that need to comply. At present there is no requirement for inspection at one of the key points of construction for Part L that would influence U-values, thermal bridging and air leakage. It is therefore suggested that an additional inspection be included for this purpose. It would also highlight the importance of Part L to Building Controls and developers alike.

We suggest that a feasibility study is urgently carried out looking at the impact of introducing an additional inspection of this kind for Part L.

Local Authority Revenue Many Local Authority Building Control departments have been merged with Planning departments. Whilst all revenue generated by them is supposed to be reinvested in Building Control it is often being subsumed into budgets at a higher level. Many Building Control Officers feel forced to justify and fight for training and administration budgets.

It is recommended that a full survey or audit of Local Authority Building Control departments is carried out to determine the extent of such “lost revenue”.

Prosecutions There are different options available to each of the different Building Control sectors, but essentially if compliance is not achieved the last resort is prosecution. However these prosecutions are not taken forward on a regular basis, as the time gap available requires fast action. In extending this time by a further 6 months it would enable more prosecutions to

take place. Secondly the resources are often not in place to obtain the necessary legal support or by ensuring that Building Control departments are in control of their own budgets and funds they may be more likely to take things forward. Lastly by publicizing these cases threat of legal action will become more of a deterrent than currently is perceived by the developers.

We propose that the legislation relating to the statutory 6 months window for prosecutions should be amended to 12 months. We also suggest that suitable forms of legal service be made available to the Building Controls to enable them to take the cases forward.

Future Revisions Complexity As the document becomes more complex it becomes harder for all parties to interpret, secondly it increasingly references more and more documents which the developer or builder is expected to accumulate and know. For the larger developers this is unlikely to be too onerous. However for the smaller developers and builders it may prove to be impossible. Therefore it is likely that the skills gap will continue to increase unless assistance is given on a case-by-case basis. This is currently not available but may be the only way to ensure that builders understand the requirements that they are expected to meet. In reality the smaller builder or developer does not have the time nor knowledge to determine the best option to meet a descriptive rather than prescriptive requirement. He is therefore more likely to comply through luck rather than skill.

We recommend that all referenced documents are posted in one central place to enable easy access. We believe that a help line providing assistance should be setup to enable builders and developers to be hand held through the application process. We also recommend that a hand holding system is developed to provide basic practical solutions for the smaller developer who will not have the budget or time to research or understand future revisions of Part L.

Competent Persons The study detected that there was a gap appearing between the areas that are covered by a competent person and that of Building Control officers, those being heating, hot water, controls, insulation, commissioning certificates and O&M manuals. It is important to make clear the boundaries and ensure that the gap is reduced.

We recommend that these personnel gaps and overlaps are clarified to ensure that all aspects are covered during construction.

6.2 Attitude changes

Building Control Attitude Change and Enforcement The existing Building Control Officers must understand the reasons for Part L and learn that it is a section to be taken seriously. General enforcement of the Building Regulations was perceived to be good, however in respect of Part L, few interviewees said that they would write letters, or refuse a completion certificate as it “seemed trivial”. Until the current TRIVIAL attitude towards Part L changes it is unlikely that Building Control Officers will enforce or prosecute developers without the fear of ridicule. Just as Air Quality is now considered a serious issue, Part L or rather energy efficiency must undergo a similar attitude.

We recommend that possible options to generate this attitude change are looked at.

Attitude change in the Construction Industry and Compliance The key barrier to greater adoption within the construction industry is the current attitude to ‘energy efficiency’ and how it fits into the commercial realities of developments. Much of this is down to ignorance and a lack

of understanding. This study showed that in many cases it is small on site changes in workmanship and knowledge that will have an impact however these groups are the hardest to reach. Similarly until the Construction Industry realises the importance of Part L and that the Building Controls are taking it seriously, they are unlikely to change their approach.

We suggest that an options study be carried out on the best ways to reach these actors and ensure attitude change by providing practical information and solutions. Building Control must be seen to be taking energy efficiency seriously for builders and developers to ensure that they meet the requirements.

6.3 Training, skills and quality control

Building Control Skills The interviews showed that there was a clear lack of specialist skills in Building Services and Energy Efficiency, where there is a clear contrast with specialists in many of the other areas. As Part L becomes more complex there will be a greater need for knowledge in this area, which at present is not being catered for.

We recommend that specialists be trained or employed in this area to ensure that each department, group or company can cover all aspects of Part L.

Building Control Training Much of the training received by Building Control Officers provides them with information on products and policy development however there is a need to offer more training in the area of actual interpretation for real life cases in workshop format.

We suggest that more workshop-based training is provided looking at actual cases and their possible interpretations. We suggest that this is carried out by Building Control Officers themselves i.e. those that have on the ground practical experience.

Building Control Quality Control At present there is no consistent system in England and Wales, therefore a quality control system needs to be developed across all Building Controls sectors to ensure that there is a consistent approach throughout the country.

It is suggested that a national quality control system is established to ensure consistency amongst areas and Building Control sectors.

Market availability Many Builders merchants continue to stock products that are no longer compliant. Energy efficient lighting is one example, where the cheapest product is unsightly and therefore not fitted or fitted in an un-used space. However there are a number of new subsidized products on the market which could be selected instead if they were widely available or pushed by the merchants.

We recommend more rigorous inspection of products' conformity to Building Regulations requirements at the point of sale.

APPENDICES

Appendix 1 Interview format

The Phase 2 interview, note that the Pink questions denote additional questions asked.

EST - Compliance with Part L of the Building Regulations

	PERSONAL DETAILS	
	NAME OF INTERVIEWER	
	NAME and TITLE OF INTERVIEWEE	
	AREA/COMPANY	
	DATE	

TELEPHONE

Area	QUESTION	ANSWER
Introduction		
	An explanation into the background of this project climate change, the energy white paper, the action plan, BRE report and so looking at new dwellings and Part L	
E		done
E	Explain about the sensitivity of this work and understanding complete confidentiality so total honesty appreciated	done
Q	What was your initial reaction when you were asked to do this interview?	
	Local Authority Building Control	Private Building Control
Your LA BC		
Q	How long have you worked in the department?	
Q	What is your profession and career background?	
Q	How many BC officers are there in the department?	
Q	What are their professions and career backgrounds?	
Within your local authority		
Q	What is your LA development strategy. Is large regional development planned?	
Q	Are building regulations a priority to your LA	
Q	How does climate change, sustainability and energy efficiency rank at your LA	
Q	Do these differ from Local Authority to LA?	
Q	Does your Local Authority liaise with other Authorities over joint priorities / approaches to compliance?	
Q	Within your Local Authority, what are the key operational approaches for staffing, and funding (Bregs, revenue for B Control...)	
Q	Do you know what happens to the revenue generated in your department? How is it reinvested? IF not where does it go?	
Q	Are there any particularly poor areas of compliance i.e. splitting down into parts of the Building Regulations	
E	We will come onto particular issues associated with Part L in a bit	
Q	Approximately how often in the last year have your department felt it necessary to take steps to ensure compliance.	
Q	What are your feelings on the current powers available to BCs on enforcement.	
Q	No of prosecutions	
Q	Details each of them, i.e. were they successful or a failure. (Which parts of Regs, any part L?)	
Q	If it was a failure what were the reasons for this failure.	
Q	Approximately what were the costs and time associated with it? (Man hours)	
Q	What changes do you think would be needed to correct the situation.	
Q	If possible what other powers do you feel that BCs should have, what effect would these have.	
Q	Do you think that the six months available to take non compliant builders to court is sufficient or would you like it to be longer?	
Your Private BC		
Q	How long have you worked as a Building Control officer?	
Q	What is your profession and career background?	
Q	How many BC officers are there in the company branch?	
Q	What are their professions and career backgrounds?	

Within your company and the local authorities you deal with	
Q	what sort of dealings with LA do you have?
Q	What is your perception of the differences, advantages and disadvantages between Private BCs and Local BCs
Q	Are there any particularly poor areas of compliance i.e. splitting down into parts of the Building Regulations
E	We will come onto particular issues associated with Part L in a bit
Q	Approximately how often in the last year have you felt it necessary to take steps to ensure compliance. (e.g. letters etc)
Q	How often have you had cases which you have had to hand over to a LA BC for them to use enforcement powers.
Q	What are your feelings on the current powers available to BCs on enforcement. Do you think that Private BC's should also have powers?
Q	If possible what other powers do you feel that BCs should have, what effect would these have.
Q	Do you think that the six months available to take non compliant builders to court is sufficient or would you like it to be longer?
Case Load (All Department & not specific to Part L)	
Q	As a department/company how many cases do you tend to handle in a year?
Q	What proportion of those are domestic (i.e. extensions) retrofits/upgrades
Q	what proportion of those are new dwellings?
Q	Could you explain roughly the split of development sizes that you tend get, perhaps into the following categories large developments (over 50 units), smaller developments (under 50 units) and one offs (one to three units)
BC Process	
Q	What proportion of those cases come through with plans to notification
Q	Do you get to visit all sites? How many times during the construction do you get to site?
Q	Do you think that there should be any additional visits? IF so when?
General Compliance and Enforcement (possibly a repeat of the earlier section - focus on Part L)	
Q	Generally what are the compliance levels like in your district/borough
Q	Do you feel that - in general - your Authority/company is successfully achieving compliance with the Building Regs?
Q	How well received do you perceive a letter of non compliance is by a builder/developer? (seriousness of their reaction)
Q	Are you aware that the Building Control system is different in Scotland. What do you think of the differences?! (UK several routes eg full plans, notify starting work, notify that work in progress. In Scotland, must notify with full plans then issued building warrant certificate before can start work.)
Communication and training (Still mostly generic)	
Q	Does your BC Chief liase with other BCs over joint priorities / approaches to compliance?
Q	does your BC Chief liase with other industry groups in the area
Q	Does all BCs liase with other BCs over joint priorities / approaches to compliance?
Q	does all BCs liase with other industry groups in the area
Q	What training do you and your colleagues undertake, for new entrants, and ongoing training (e.g. external / internal CPD, publications, individual study)
Q	What training do you and your colleagues undertake for revisions of various parts of the building regulations (e.g. external / internal CPD, publications, individual study)
Q	Perhaps you could explain about any training that was undertaken for the 2002 revision of Part L in particular the boiler revision which came out this year. (If mention 2006, then say cover that later.) Conferences, external, internally, and at what level.
Q	how was that training provided did it come from a central government source, internally or by other industry members.

Q	Do you think that wider training and support on Bldg Regs compliance issues is sufficient?	
Q	Do you feel that your training and skills allow you to implement Bldg Regs fully?	
Q	What other training would you suggest?	
Q	What sort of quality control systems for checking consistency of interpretation of the Building Regulations do you have in your department/company?	

Q Is there a national system for quality control for managing the process of Building Regulation implementation & Regulation?
 ODPM sets regs, each BC officer uses their judgement & experience to interpret and apply, so want to find out whether there are any systems to check for consistency of application - e.g. trigger points for visits & overview of cases to ensure consistency.

Part L1 2002 (dwellings)		
Q	Where do you feel part L lies in the priority ranking of the different parts of the Building Regulations?	
Q	Where do you feel it should lie in the priority ranking?	
Q	In what ways could the level of compliance with the current Part L1 be improved?	
Q	which is the most popular method for compliance elemental method, target U-value, carbon index	
Q	What do you do if you find a non compliant element	
Q	what are the most common areas of non compliance with Part L1?	
	Dependant upon answer go to relevant section	

U-values of constructional elements
areas of windows, doors and rooflights
thermal bridging
air leakage
heating system efficiency
hot water systems
controls of space heating and hot water systems
commissioning certificates for heating and hot water systems
insulation of pipework and ducts
O&M manuals (operating and maintenance)
internal lighting
external lighting
conservatories

Other Technical Questions

Q	Do you tend to look at the heating and hot water systems or are they something that is covered by a competent person?	Reason for question - gap between competent person's scheme e.g. CORGI and the Building Regs. Gap is between the boiler and the integration of the system e.g. commissioning and O&M manuals.
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industry (construction industry stakeholders - e.g. builders, manufacturers, suppliers etc.)		
	In general, how well do you feel that other organisations within the construction industry understand Part L	
	What do you feel are the practical problems that other organisations face in complying with Part L?	
	In general, do you feel that other organisations within the construction industry adopt a responsible attitude to compliance?	

U-values of constructional elements	
Could you explain exactly what the non compliance tends to be within that area	
could explain at what stage you tend to detect non-compliance	
could you explain how you detect non compliance	
what elements of the dwelling tend not to comply	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	If yes then go to the relevant area. If no then go onto industry questions and part L1a 2005
areas of windows, doors and rooflights	
Could you explain exactly what the non compliance tends to be within that area - it could be the area of glazing or the U value	
how do you tend to discover it?	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	If yes then go to the relevant area. If no then go onto industry questions and part L1a 2005
thermal bridging	
Could you explain exactly what the non compliance tends to be within that area	
how do you discover it ? At what stage and how is it rectified	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	If yes then go to the relevant area. If no then go onto industry questions and part L1a 2005
air leakage	
could you explain how many of dwellings you ensure y	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	If yes then go to the relevant area. If no then go onto industry questions and part L1a 2005

heating system efficiency	
Could you explain exactly what the non compliance tends to be within that area, - boiler efficiency rating - SEDBUK	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	If yes then go to the relevant area. If no then go onto industry questions and part L1a 2005
hot water systems	
Could you explain exactly what the non compliance tends to be within that area	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	If yes then go to the relevant area. If no then go onto industry questions and part L1a 2005
controls of space heating and hot water systems	
Could you explain exactly what the non compliance tends to be within that area	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	If yes then go to the relevant area. If no then go onto industry questions and part L1a 2005
commissioning certificates for heating and hot water systems	
Could you explain exactly what the non compliance tends to be within that area	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	If yes then go to the relevant area. If no then go onto industry questions and part L1a 2005

insulation of pipework and ducts	
Could you explain exactly what the non compliance tends to be within that area	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	If yes then go to the relevant area. If no then go onto industry questions and part L1a 2005
O&M manuals (operating and maintenance)	
Could you explain exactly what the non compliance tends to be within that area	
Generally are they provided and do you see them?	
Do they tend to be fully comprehensive and pitched at the right level for a homeowner?	
Are there common gaps in the information provided	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	If yes then go to the relevant area. If no then go onto industry questions and part L1a 2005
internal lighting	
Could you explain exactly what the non compliance tends to be within that area	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	If yes then go to the relevant area. If no then go onto industry questions and part L1a 2005
external lighting	
Could you explain exactly what the non compliance tends to be within that area	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	If yes then go to the relevant area. If no then go onto industry questions and part L1a 2005

conservatories	
Could you explain exactly what the non compliance tends to be within that area	
Who is typically responsible on a site for this element of work and ensuring that it is compliant.	
Generally is compliance gained once the fault is noted	
do you get repeat offenders	
do the offenders repeat or not generally from larger or smaller outfits/companies (or is it an individual?)	
how many non Part L non compliant elements do you find on average at a dwelling	
do you feel that this non compliance is from a lack of understanding, ignorance, cost cutting, lack of quality assurance, or lack of will or skills by professionals, builders or tradesmen etc.	
Are there any other common areas of compliance?	<u>If yes then go to the relevant area.</u> if no then go onto industry questions and part L1a 2005

Additional Questions

- Part L1 (2002) states that the responsibility for achieving compliance with Part L rests with the person carrying out the work. Where the person giving the certificate has a recognised qualification, the certificate may be accepted by the building control body as evidence that Part L1 b) and d) are complied with. Where the person does not have a relevant qualification, or a 'suitably qualified certifier' is not available, the person responsible for the work should provide or obtain a written declaration of successful commissioning.

How do you determine if the installer is a suitably qualified person? Or alternatively determine that the requirements have been met within the installation?

- What is your understanding of the legal liability that lies with Building Control Officers once a completion certificate has been awarded?

Appendix 2 Contact areas

Phase 1 Contact Areas

Local Authority Building Controls

Birmingham
Bolton
Bradford
Bristol
Cardiff
Dartford
Dudley
Edinburgh
Fenland
Leeds
London Borough of Barking and Dagenham
London Borough of Brent
London Borough of Ealing
Medway
Merton
Milton Keynes
North Lanarkshire
Northampton
Oldham Metropolitan Borough
Portsmouth
Reading Borough
South Ayrshire
South Hams
West Berkshire
West Somerset

Private Building Controls

Birmingham
Cardiff
Leeds
Lincoln
London
Manchester
Milton Keynes

Phase 2 Contact Areas

Local Authority Building Controls

Bury, manchester
Glamorgan
Wakefield, Manchester
Renfrewshire Council
Eastbourne
Rhondda-Cynon-Taf
Ashford
Inverclyde

Private Building Controls

Clemsford
Stratford Upon Avon
Clacton on sea
Manchester

NHBC

Newallerton
Hereford
London
Bedford
Milton Keynes
Huddersfield
Worcester
Medway
York
Darlington
Warrington
Kettering
Stratford Upon Avon
Barnsley
Brentwood
Swansea