The Hackitt Review of Building Regulations and Fire Safety

Date and Location: 24th January, 2018 at The Royal Society

Chair: The Earl of Selborne GBE FRS
    Chair, The Foundation for Science and Technology

Speakers: Dame Judith Hackitt DBE FREng
    Chair, Independent Review of Building Regulations and Fire Safety
    for the Government
    Graham Watts OBE
    Chief Executive, Construction Industry Council (CIC)
    Peter Baker
    Director, Construction Division and Chief Inspector of Construction,
    Health and Safety Executive

Panellists: Dr Peter Bonfield OBE FREng
    Member, Grenfell Expert Panel, Ministry of Housing, Communities
    and Local Government and Chief Executive, Building Research
    Establishment Group
    Turlogh O'Brien CBE
    Chairman of the Governing Board of the Chartered Institute of Housing
    and Post-Grenfell Expert Working Group, Construction Industry Council (CIC)

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Audio Files: www.foundation.org.uk

Hash tag: #hackittreview

DAME JUDITH HACKITT said that she wanted to raise with the Foundation the broader context to her review, which went wider than fixing the issues with Building Regulations and involved taking a system view of regulation, and learning lessons for the effective regulation of other sectors. Her review had been announced on 28 July 2017, and was reporting to the Housing Secretary and the Home Secretary. It was necessarily distinct from the Grenfell Tower inquiry.

The first phase of its work had started with a call for evidence and a significant mapping exercise, followed up with several roundtables and stakeholder meetings.

The interim report had been completed just before Christmas, and the final report was due in late spring this year[1]. The recent Review Summit meeting had shown wide support for the approach being adopted.

The existing complex system of Building Regulations had failed, with many points of weakness. It was clear what needed to be fixed, and that a radical overhaul was needed at a systems level. The interim report had found that significant cultural change was needed. Penalties for breaching regulations in the construction sector were very low, and the sector's culture of proceeding at lowest cost was unhelpful. A

1 www.gov.uk/government/publications/independent-review-of-building-regulations-and-fire-safety-interim-report

coherent building lifecycle approach would be needed, and the sector needed to take responsibility rather than waiting to be told what to do by the Government.

The emerging themes from the interim report focussed also on establishing clarity in roles and responsibilities; better assessment of competence; making the voice of residents better heard; and giving clarity to the system of product testing. The revised regulatory approach needed to be more geared to differing levels of risk, and to establishing a "golden thread" with clear statements of design intent and rigorous control of changes to that design. Short term recommendations in the interim report included restructuring Approved Documents, restricting desktop studies and getting professional bodies to improve their standards.

The second phase of the review would continue to have wide stakeholder involvement. A series of work streams would be answering the key outstanding questions. The composite model first devised by Charles Haddon-Cave QC was useful in considering how to establish multiple layers of protection, when over time a multitude of building users might weaken protections. This required a whole system approach to be put in place, based on risk management principles.

Summing up, it was important to reflect on how most people had already recognised that the current approach was broken, with a combination of flaws, and yet effective remedial action had not been taken. A new regulatory framework for high rise and complex buildings would now be put in place, shifting the sector's current culture, being truly outcomes based, and with responsibility held by the right people. The broader lessons of this for regulatory frameworks in other sectors also needed to be grasped.

GRAHAM WATTS explained that he was Chief Executive of the Construction Industry Council, whose members were 50 professional bodies in the sector. They had set up an Industry Response Group in July, which was contributing actively into Dame Judith's review and the other inquiries set up after the Grenfell fire. They had identified the number of high rise buildings currently at risk, were seeking to increase the supply of fire safety consultants and Clerks of Works, were providing information to high risk building owners, and seeking to improve the efficiency of the cladding process.

The Council had formed six "chapter" groups to contribute to the public inquiry, and these also were closely aligned with the work in the second phase of Dame Judith's review. Their Industry Response Group agreed that lowest cost tendering was not a reliable way to achieve lifetime safety of buildings, and that a golden thread was needed to define responsibilities clearly and to avoid divisions between design and construction phases. Work on site needed to be inspected appropriately, the voice of residents heard better, and the nature and scope of fire risk assessments improved.

The Group's recommendations for higher risk buildings included introducing the role of a Life Safety Manager, who had to take a holistic approach to safety, and making it mandatory for clients to adopt a balanced score card for procurement. Colour coding should be required for certain fire-rated products, such as fire doors, and new independent whistleblowing arrangements introduced for unresolved complaints from residents. The Council gave its full support to the approach adopted by Dame Judith's review, and its call for fully joined up ways of working.

PETER BAKER said that his role at HSE involved the application of the Construction (Design & Management) Regulations 2015 (CDM) across the construction sector. Having previously worked at HSE with the onshore chemicals sector, he shared Dame Judith's view that it was essential to look across sectors to find the best way forward for construction sector regulation. In relation to high hazard industries it was therefore helpful to examine the approach adopted with the Control of Major Accident Hazards Regulations 2015 (COMAH), which had moved away from regulation being rules based, with major hazard incidents being rare. This focussed responsibility on the plant's operator, who had to show leadership in relation to the plant's supply chain. This approach required significant investment by the operator, and also by the regulator (who would need to recover their costs). In the major hazard sectors operators had become good at sharing expertise.

In terms of the implementation of the CDM since 2015, it was necessary to take proportionate action, in a sector with many smaller players, and avoid unnecessary bureaucracy. Construction of the Olympic Park had led the way in several respects, in terms of measuring performance and worker involvement. Particular attention was needed to the responsibilities of the principal designer and principal constructor. Improving designer performance was perhaps harder than client performance, as many were smaller businesses, and designers needed to take

responsibility more themselves rather than delegating to consultants. Key individuals required sufficient competence, in terms of skills, knowledge, training and experience. Supply chain competence needed particular scrutiny. "Blue tape" compliance could give a false level of security. Overall the construction sector had seen a reduction in major injuries and fatalities over the last 15 years.

PETER BONFIELD stressed the importance of the immediate action advice to government of the expert group of which he was a member. He said that the first priority after the Grenfell fire of the BRE Group, of which he was Chief Executive, had been to provide independent advice to Whitehall, and help them formulate the wide range of questions to be addressed. BRE and others had rapidly had to test building cladding from 312 buildings over 18 metres high, and had established that the cladding on 299 of these was problematic. They were now advising on how this material could be removed safely. Recently they had been working closely with many stakeholders on the issues raised by the review and the public inquiry.

DISCUSSION

The subsequent discussion started with a debate about the difficulties of keeping large multi occupancy buildings safe when they had a substantial number of separate leaseholders in residence. Such challenges could be exacerbated if many of the units were only occupied on a very short term basis. The review would address issues of occupancy like this, particularly by considering how responsibilities could best be allocated after the construction phase. Each individual building might need its own system of fire safety assurance, taking account of the impact of changes which individual leaseholders could make to their own part of a larger building, for example through installing broadband or individual heating systems, and how this could weaken overall assurance. Part of the solution might involve legislation and stronger enforcement about the maintenance of fire doors and mandatory gas appliance servicing.

Renovation of buildings could introduce greater risks, as had been learnt tragically when double glazed window units had led to different building characteristics in the event of an explosion. In Germany there remained a requirement for stringent annual inspections of higher risk properties. Further requirements to keep full records of building changes, such as digital logbooks, and the assessments made before the changes were made of the risks which could result, might also contribute to the solution. Alterations made during construction, which created differences from the plans originally approved, also needed to be logged properly.

Although the plethora of professional bodies in the construction sector might make implementation of cultural change more difficult, the progress made in reducing construction deaths and injuries had showed that cultural change was possible. Making those responsible for design and construction of buildings feel the responsibility for the safety of those buildings after they were in use was needed. This should be accompanied by giving individuals with the right capabilities personal responsibilities for buildings during use, rather than placing these responsibilities on remote corporate entities.

Better training of residents about how to respond to a fire could be effective, and had proved to be lifesaving in the case of a university student who had been trained. Some 20 years ago the Fire Service had run significant community engagement programmes, in the areas of smoke detectors and furniture flammability. A return to programmes like this could be beneficial.

In the rail sector a switch from rule based safety regulation to risk based regulation had been helpful. Some felt that giving a financial value to safety and life in making risk assessments had been useful in making effective decisions, but others suggested that experience with such numerical approaches had been much more mixed.

In considering how to require effective action when systemic errors were identified, practice in medicine, in maintaining reservoirs, in aviation and in shipping could helpfully be examined alongside the high hazard sectors of chemicals, nuclear and rail.

The review would examine regulatory experience abroad as well as in the UK. The faster pace of construction in France had been examined in a review led by Oliver Letwin. The essential issue for overseas experience would be whether it would fit the UK context. Although the review had already considered some issues about the procurement of buildings, in the next phase procurement would be examined more explicitly.

There was bound to be further debate about the scope for safer evacuation of people from tall structures. The provision of multiple staircases might be an essential component. After Grenfell it seemed doubtful whether "stay put" advice would be heeded by residents, even if building managers still felt that it

would be appropriate. Despite the recent tragedy, in fact substantial progress had been made in fire safety over the last 20 years, with around 1,000 annual deaths then and around 250 recently.

There was further discussion about what constituted competence for those with key responsibilities. This was much more than a matter of qualifications. The experience had to relate to the specific risks. In other sectors the reluctance of employers to insist on minimum qualifications, when there was a shortage of those, had been a contributing factor in creating problems.

Changing culture was essentially about people. Tackling competence required the professional bodies to take strong action when a lack of competence was found. In the social housing sector a re-introduction of caretakers in some estates had done much, at relatively low cost, to transform relationships and build better practice, for example in terms of closing fire doors and keeping exits clear.

John Neilson

Useful URLs

Building a Safer Future, Independent Review of Building Regulations and Fire Safety: Interim Report by Dame Judith Hackitt DBE FREng

www.gov.uk/government/publications/independent-review-of-building-regulations-and-fire-safety-interim-report

Grenfell Tower Inquiry
www.grenfelltowerinquiry.org.uk

UKRI and Research Councils:
Arts and Humanities Research Council
www.ahrc.ac.uk

Biotechnology and Biological Sciences Research Council
www.bbsrc.ac.uk

Engineering and Physical Sciences Research Council
www.epsrc.ac.uk

Economic and Social Research Council
www.esrc.ac.uk

Medical Research Council
www.mrc.ac.uk

Natural Environment Research Council
www.nerc.ac.uk

Science and Technology Facilities Council
www.stfc.ac.uk

UKRI
www.ukri.org

Companies, Research Organisations and Academies:
Association of Innovation, Research and Technology Organisations (AIRTO)
www.airto.co.uk

Association of Residential Letting Agents (ARLA)
www.arla.co.uk

Association of Residential Managing Agents (ARMA)
www.arma.org.uk

Academy of Medical Royal Colleges
www.aomrc.org.uk

Academy of Medical Sciences
www.acmedsci.ac.uk

British Academy
www.britac.ac.uk

BSI Group: Standards, Training, Testing, Assessment and Certification
www.bsigroup.com/en-GB

Building Research Establishment
www.bre.co.uk

Catapult Programme
www.catapult.org.uk

The Chartered Institute of Building
www.ciob.org

Construction Industry Council (CIC)
www.cic.org.uk

Construction Products Association (CPA)
www.constructionproducts.org.uk

Costain
www.costain.com

Department for Business, Energy and Industrial Strategy
www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy

Department for Education
www.gov.uk/government/organisations/department-for-education

Federation of Master Builders
www.fmb.org.uk

Government Office for Science
www.gov.uk/government/organisations/government-office-for-science

Health and Safety Executive
www.hse.gov.uk

Innovate UK
www.gov.uk/government/organisations/innovate-uk

The IET
www.theiet.org

The Institute of Risk Management
www.theirm.org

The Institution of Civil Engineers
www.ice.org.uk

The Institution of Fire Engineers
www.ife.org.uk

The Institution of Mechanical Engineers
www.imeche.org

Knowledge Transfer Network
www.ktn-uk.co.uk

Laing O'Rourke
www.laingorourke.com

Lloyd's Register Foundation
www.lrfoundation.org.uk

Local Authority Building Control in England and Wales (LABC)
www.labc.co.uk

Ministry of Housing, Communities and Local Government
www.gov.uk/government/organisations/ministry-of-housing-communities-and-local-government

National Federation of Tenant Management Organisations (NFTMO)
www.nftmo.com

National Fire Chiefs Council
www.nationalfirechiefs.org.uk

National Housing Federation
www.housing.org.uk

National Physical Laboratory (NPL)
www.npl.co.uk

Office of Rail and Road
www.orr.gov.uk

Royal Academy of Engineering
www.raeng.org.uk

The Royal Society
www.royalsociety.org

The Royal Society of Edinburgh
www.rse.org.uk

The Royal Society of Medicine
www.rsm.ac.uk

Russell Group
www.russellgroup.ac.uk

Shelter
www.shelter.org.uk

University Alliance
www.unialliance.ac.uk

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www.wellcome.ac.uk

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