

Competence, Compliance & Carbon: understanding the Building Safety Bill and updates to Building Regulations

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Summary

This is a time of unprecedented change in our sector:

the Building Safety Bill and supporting regulations are driving the most far reaching review of building and fire safety legislation in half a century;

greater digitalisation, modularisation and off-site fabrication and assembly **are** government priorities;

the Climate Change Act's net zero carbon target by 2050 is driving changes to building energy legislation, including Parts L, F, O and S.



Building a Safer Future

"The current system is "broken"..."

Independent Review of Building Regulations and Fire Safety:

Final Report

Key issues underpinning system failure

Ignorance – regulations and guidance not always read by those who need to and misunderstood and misinterpreted.

Indifference – the primary motivation is to do things as quickly and cheaply as possible rather than deliver quality homes which are safe to live in. Concerns often ignored and a failure to prioritise safety.

Lack of clarity on roles and responsibilities – ambiguity over responsibility, fragmentation lack of accountability.

Inadequate regulatory oversight and enforcement - project size or complexity does not inform the level of oversight by the regulator. Enforcement not pursued, penalties are not an effective deterrent.



The government position

Accepts ALL of Dame Judith's findings

- Passed Fire Safety Act implementation coming very soon!
- Introduced the Building Safety Bill
 - Establishing the new Building Safety Regulator for ALL buildings, NOT just higher risk buildings
 - A new regime for Construction Products safety and approvals – Draft Construction Product Regulations
 - Developing a new competence framework for ALL in the industry – Draft Building (Appointment of Persons, Industry Competence and Dutyholders) Regulations
 - Stringent procedures to notify work on HRBs *Draft Building (Higher-Risk Buildings) (England) Regulations*



So what <u>do</u> we know now?

Building Safety Bill is in the Commons, at committee stage Work already begun on key areas in the Bill, with draft Regulations Competence frameworks for engineers being put into UK-SPEC (HRB) by Engineering Council, with three 'annexes' for structure, fire and building services. Facades currently being addressed within the structural group.

BSI PAS being developed for 3 roles – Principal Designer, Principal Contractor and Building Safety Manager – **PAS 8672**, Principal Contractor - **public consultation closed 10 Nov**

Safety Case & Safety Case Reports for ALL HRBs, **new AND existing**

Engineering Council (EC) considering licence arrangements for PEIs EC considering 'revalidation model' – likely to be 5 years, professional logbook, CPD, possibly with interview, for ALL licensed engineers



The Building Safety Bill

The Bill will:

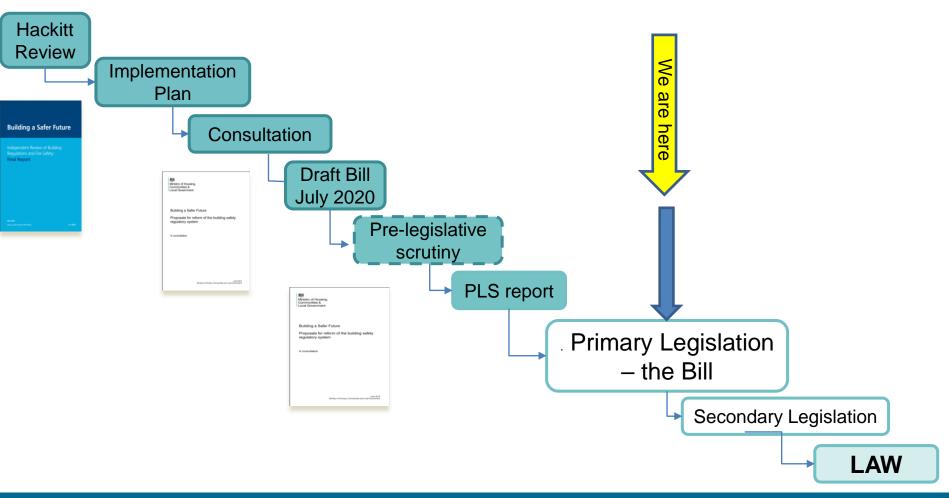
- Create the Building Safety Regulator, operating within the HSE
- Transfer responsibility for building control to the BSR

This includes ALL building work that requires building control approval – whether through a building notice or full deposit of plans
The BSR will set standards for building control officers
The BSR will be responsible for enforcement of building regulations, with potential criminal sanctions in the worst cases

- Give the BSR responsibility for building work on ALL buildings It is NOT just for higher risk buildings – its for everything!
- Set new competence requirements for work on ALL buildings
- Set up a new safety case based regime, initially for higher risk buildings –
 often called "buildings in scope" which means in scope of the HRB rules
- Establish new dutyholder roles and regulatory gateways
- Establish the golden thread of information for buildings in scope



Building Safety Bill – current status





Building Safety Bill

A Bill in five Parts

- Introduction and Scope
- Establishing the new Regulator, Committees and Powers
- Major revision and reform of the Building Act 1984
- The new Higher Risk Buildings Regime
- Constructions Products, Architects Registration

The Bill also contains some enabling provisions relating to the costs of building remediation



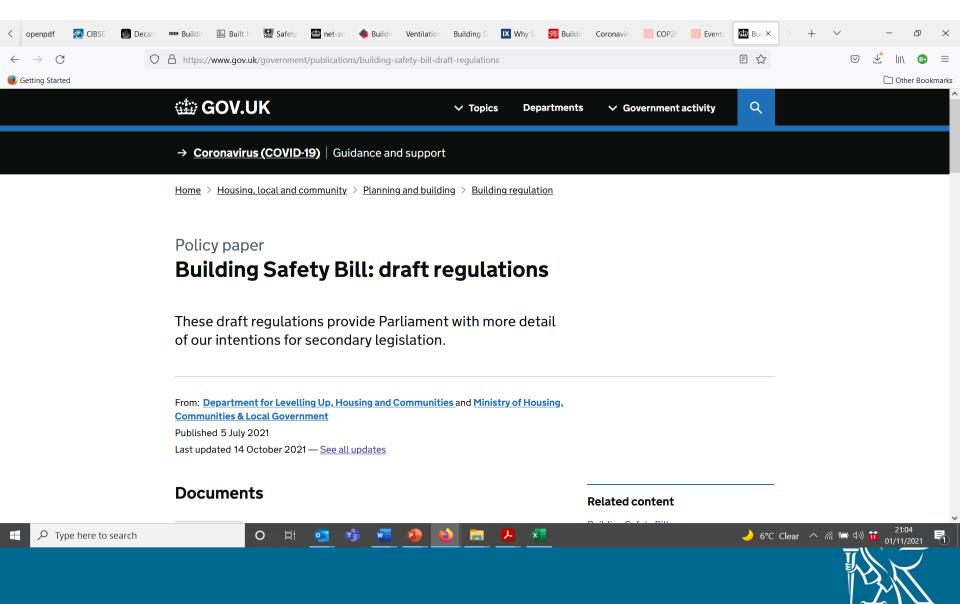
The new regime and "Buildings in Scope"



The new Building Safety Regulator applies to all buildings, not just those in scope of the more stringent regime for higher risk buildings set out in Part 4 of the Bill



Its not just the Bill....



8 sets of draft regulations

These are the draft competence regulations issued to support the Building Safety Bill

They apply to ALL BUILDING WORK THAT REQUIRES BUILDING REGULATIONS APPROVAL

They do NOT just apply to high rise resi

STATUTORY INSTRUMENTS

[2021 No. xxx]

BUILDING AND BUILDINGS, ENGLAND

The Building (Appointment of Persons, Industry Competence and Dutyholders) (England) Regulations [2021]

Made - - - - ***

Laid before Parliament ***

Coming into force - - ***

The Secretary of State has consulted the regulator and such other persons as the Secretary of State considers appropriate in accordance with section 120B(3) of the Building Act 1984(a).

The Secretary of State, in exercise of the powers conferred by section 1 of, and paragraphs 1D, 5A, 5B and 5C of Schedule 1 to, the Building Act 1984, makes the following Regulations.

PART 1

Preliminary

Citation, commencement, extent and application



Competence

Building (Appointment of Persons, Industry Competence and Dutyholders) Regulations (DRAFT)

- A new competence framework for the industry
- Applies across the industry not just higher risk buildings
 Effectively a general requirement that everyone working
 on buildings must be competent to do what they do
- Sets the onus on people and employers to assess competence and demonstrate it to clients and regulators
- It is largely for industry to decide who is competent to do what – no "to do task X you must be in scheme Y" model



What do they require?

Considerations before a person carries out work

- 7.—(1) This regulation applies where a person (P) is proposing to use any person (A) to carry out any building work or design work.
- (2) Before permitting A to carry out any work, P must take all reasonable steps to satisfy themself that A—
 - (a) fulfils the requirements in regulation [8(1) and (2)] (competence: general requirement), or
 - (b) is an individual who is in training to fulfil the requirements in regulation [8(1) and (2)] and arrangements have been put in place to supervise A.
- (3) Before permitting A to undertake any work, P must additionally take all reasonable steps to satisfy themself that A is able to fulfil the duties of regulation [13] (general duty to plan, manage and monitor).



Requirements for dutyholder roles

- (4) Where A is to be appointed as the principal designer, the client must take all reasonable steps to satisfy themself that A fulfils the requirements in regulations [8(1) and (2)] (competence: general requirement) and [9(1)] (competence: principal designer) in relation to the design work.
- (5) Where A is to be appointed as the principal contractor, the client must take all reasonable steps to satisfy themself that A fulfils the requirements in regulations [8(1) and (2)] (competence: general requirement) and [10(1)] (competence: principal contractor) in relation to the building work.
- (6) A request to undertake any building work or any design work must not be accepted by A if A does not satisfy the requirements in regulation [8(1) and (2)] (competence: general requirement) at the time of the appointment (except where those requirements do not apply to it by virtue of regulation [8(3)]).
 - (7) A must not act—
 - (a) as the principal designer in relation to any design work if A does not satisfy the requirements in regulations [8(1) and (2)] (competence: general requirement) and [9(1)] (competence: principal designer) at the time of the appointment;
 - (b) as the principal contractor in relation to any building work if A does not satisfy the requirements in regulations [8(1) and (2)] (competence: general requirement) and [10(1)] (competence: principal contractor) at the time of the appointment.



Dutyholders

Note the responsibilities being placed on clients AND designers/contractors:

Its for the clients to "take all reasonable steps to satisfy themselves" about the competence of those that they propose to appoint.

And there is a duty on the designers and contractors to satisfy themselves that they are accepting an appointment that they are competent to undertake.

It is a huge responsibility shift.

The responsibility for doing this falls to industry and its clients.



Building Control Applications for HRBs

To work on an HRB then you need to be fully conversant with these regulations. They set out the procedures that will apply to HRBs under the new regime.

[2022 No. xxx]

BUILDING AND BUILDINGS, ENGLAND

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CONTENTS

PART 1 Preliminary



Safety Cases

Every HRB will need to have a safety case that identifies the potentially harmful events that could occur in an HRB and what the owner or operator is doing to prevent, control and mitigate those risks.

There is a focus on fire and structural stability in the safety case regime.

The safety case will be used to prepare a safety case report for the regulator.

The HSE plans to issue further <u>material</u> about safety cases.



Safety case principles for highrise residential buildings

Building safety reform – Early key messages



The golden thread

The golden thread is the information that allows you to understand a building and the steps needed to keep both the building and people safe, now and in the future.

- The golden thread is about fundamentally changing how HRBs are designed, built and managed under the more stringent regime.
- Higher Risk Building (HRB) regime will apply to buildings 18 meters and above or 7 or more storeys and they will be subject to direct oversight by the new building safety regulator.
- The aim of the golden thread is to give the right people the right information at the right time to keep buildings safe.
- For the golden thread to deliver fundamental reform regulatory change is not all that will be required, significant industry ownership and changes in practice are needed.
- Further guidance to follow.



Further reading

The following links are almost essential reading to provide fuller context for the material presented above:

https://www.gov.uk/government/collections/building-safety-bill

In particular

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attach ment_data/file/997755/Competence_and_Dutyholder_draft_regulations.pdf

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attach ment_data/file/1025876/The_Building__Higher-Risk_Buildings__England_Regulations_2022_.pdf

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1024841/DRAFT_construction_products_regulations_2022.pdf



Climate Change Act

NOW Commits UK to net zero carbon by 2050



Building Regulations update

Government has consulted on changes to Part F and Part L

The consultation included new measures to minimise overheating – which may result in a new "Part O" Also consultation on regulations relating to vehicle charging points – a new Part S likely to cover

All ahead of development of the Future Homes Standard and Future Buildings Standard



Part S

Consultation on EV charging in 2019 Response published in November setting out plans for new building regulations.



"The Government has reflected on the diverse consultation responses and has decided to introduce new measures...."



EV charging requirements

Every new home, including those created from a change of use, with associated parking within the site boundary to have an electric vehicle charge point;

Residential buildings undergoing major renovation, which will have more than 10 parking spaces within the site boundary after the renovation is complete, to have at least one electric vehicle charge point for each dwelling with associated parking within the site boundary and cable routes in all spaces without charge points;

All new non-residential buildings, with more than 10 parking spaces within the site boundary of the building, to have a minimum of one charge point and in addition to this, cable routes for one in five of the total number of spaces;

All non-residential buildings, undergoing a major renovation, which will have more than 10 parking spaces within the site boundary after the renovation is complete, to have a minimum of one charge point and in addition to this, cable routes for one in five spaces.



Part F

At consultation there were specific questions about background ventilation in homes (trickle vents). Some industry pushback reported (and overt lobbying).

Given what we have learned in the past two years about the need for ventilation, it is hoped that background ventilation requirements will be retained (and enforced!)

Proposals to mitigate risk of infection in non-domestic buildings

A number of measures, including capacity to increase ventilation rates by 50% proposed at consultation. Also use of carbon dioxide monitors to identify areas of poor ventilation.

A fast moving field and we will see how this is addressed in the latest revision.

Enforcement of the requirement to make reasonable provision for ventilation would be a very welcome start.



How much ventilation?



Volume of air

Sundell 2011 25 l/s/p Health

ASA 1946 7.5 l/s/p Comfort

min 5-8 l/s/p Odour, comfort, contaminantst 1980s on
10 l/s/p
Odour, comfort,
contamination

4.7 l/s/p Odour, comfort Save It! 1970s 5 l/s/p Energy Crisis



Part L

- A stepping stone to the Future Homes and Future Buildings Standards
- Back to two ADs ADL1 dwellings, ADL2 buildings other than dwellings
- Uplift energy efficiency standards to deliver a 27% reduction in carbon emissions
- Improved energy modelling methodologies including potential application of CIBSE TM54 to support the regulations
- More stringent standards for existing buildings undergoing refurbishment
- Increasing role for heat pumps in delivering low carbon heat for buildings



Part O?

Likely to be two methods – simple "look up" approach and dynamic analysis using CIBSE TM59

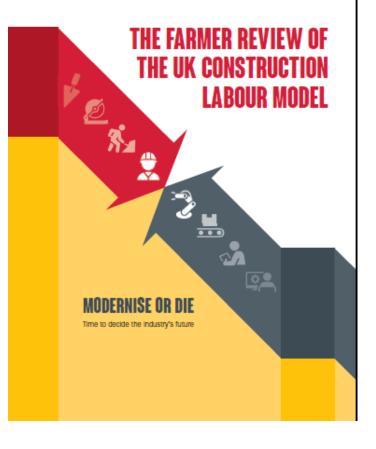
Also likely to be guidance on ways to reduce heat gains using shutters, external blinds, overhangs and awnings, as well as using trees

Guidance on removing excess heat using opening windows, ventilation louvres in external walls and mechanical systems.



Modern Methods of Construction





Press release



FOR IMMEDIATE RELEASE

14-Nov-2018

Developers embracing modern methods of construction, says new report from NHBC Foundation

A new report from the NHBC Foundation today highlights how trailblazing developers are exploring the use of Modern Methods of Construction (MMC).

The new report, 'Modern methods of construction: who's doing what?', found that developers at the forefront were investing significantly in MMC and that a majority had plans to expand the number of homes they build using such methods.

Among the house builders, housing associations and developer/manufacturers included, the report details high levels of adoption of different, advanced forms of MMC such as volumetric modules and panelised systems. Better quality, improved efficiency, accelerated delivery and increased productivity are cited by these developers as key factors driving their uptake of MMC.



MODERN METHODS OF CONSTRUCTION

INTRODUCING THE MMC DEFINITION FRAMEWORK

National Audit Office Report – November 2005





Using modern methods of construction to build homes more quickly and efficiently

REPORT BY THE NATIONAL AUDIT OFFICE | November 2005

MMC is not a new concept

After World War II we built precast reinforced concrete homes and similar

In the 1960's and 70's we built large panel system buildings

BEIS, The Farmer Report (Modernise or Die) and other government initiatives look to promote MMC

Digitalisation



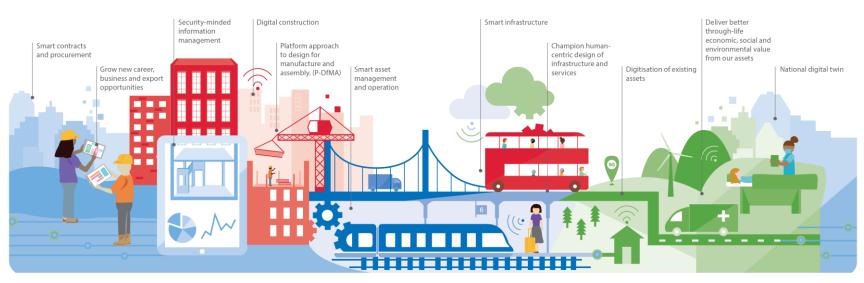








This is Digital Built Britain



Design

Use best practice, secure by default, information management and digital techniques to get data right from the start and design better-performing homes, buildings and infrastructure.

Build

Exploit new and emerging digital construction, information management, and manufacturing technologies and techniques to improve safety, quality and productivity during construction.

Operate

Use effective information management to transform the performance of the built environment and the services it delivers.

Integrate

Understand how the built environment can improve citizens' quality of life and use that information to drive the design and build of our economic and social infrastructure and the operation and integration of the services they deliver.

Net Zero

- Applies across the economy, not just the built environment
- Sets challenging targets for the building sector to retrofit existing buildings
- Has to be delivered alongside the building safety reforms
- Buildings in scope have to meet net zero targets too

December 2020



So What?

- Changes in legislation ARE coming to the industry the whole industry
- This will not be going away!
- Changes to Professional Accreditation and greater regulation
- New, key, roles of PD, PC and BSM
- The HSE will oversee the Building Regulations and Building Control
- Responsibility being placed on accountable person for the owners
- Integration of the Golden Thread into building management
- The need for a safety case process and regular safety case reports
- so HRBs will need to be re-approved for occupation regularly
- Both new and existing buildings are covered
- The industry will have a concern about resources and timing, but the message is clear – start to prepare now. There will be little sympathy for excuses later!
- The time to start preparing is now!



Dame Judith Hackitt

"I have been shocked by some of the practices I have heard about and I am convinced of the need for a new intelligent system of regulation and enforcement for high-rise and complex buildings which will encourage everyone to do the right thing and will hold to account those who try to cut corners.

"Changes to the regulatory regime will help, but on their own will not be sufficient unless we can change the culture away from one of doing the minimum required for compliance, to one of taking ownership and responsibility for delivering a safe system throughout the life cycle of a building."

Are we ready to change, now?

Thank you for listening

