Session 4: The Building Safety Act 2022: Safety Cases and Structural Risk Assessments

Questions & Answers from the Session

1. **Definition of high risk building (HRB): why not link to consequence classes (BS EN 1990)? Why such a restrictive definition? Is a stadium not a high risk building?**
    - *The definition was considered prior to legislation being passed and is based on an assessment that the greatest risk to people was due to fire/structural failure in residential buildings. The height limit both reflects the height at which fire fighting strategies change and acts as a filter to prioritize these buildings most at risk. The definition is being reviewed following the Grenfell Inquiry.*
    - *In principle, all higher consequence class buildings should be designed to satisfy robustness requirements, with more onerous demands on Consequence Class 3 buildings such as stadiums. However, in many cases, such buildings also necessitate rigorous and carefully managed strategies for the organisation of people. Considering the stadium example, during events there will be a staff and security overlay and clearly defined escape strategies that are actively managed should they need to be enacted. By contrast, residential tower block escape strategies are typically more passive in nature (this is why buildings such as hotels are excluded from the HRB definition given they typically have staff present to coordinate an escape strategy), and thus could be seen to carry a higher risk to life. There is no doubt that the decision is also likely driven by the specific issues that emerged from the Grenfell fire. However, there is no guarantee that the definition won't broaden in the future.*
2. **Should requirements on Owners regarding maintenance plans and having up to date records be irrespective of being an HRB or not?**
    - *The need for a Health and Safety File that provides relevant information on a building, including its risks and maintenance strategy, is a legal requirement under CDM 2015 for all notifiable projects. The Golden Thread associated with HRBs is slightly different in that this requires a much broader collection of data that has the wider aim of demonstrating compliance with the Building Regulations and ensuring the safety of the building.*

3. **Is it the Institution's intention to create a library of information and potential defects on HRBs to assist engineers when assessing buildings? Can this be developed as more assessments are carried out?**

    - *The Institution has already produced Assessing higher-risk buildings under the Building Safety Act: a compendium of structural typologies which can be used to help identify common HRB typologies and potential defects to look out for associated with these, although this is slightly different from what the question proposes. The Institution has no plans to develop a library of defects. However it is a recommendation of the Grenfell Inquiry Report that a construction library is formed.*

4. **What is the difference between the comments a structural engineer would make and those a fire engineer would make? Are the responsibilities of the two roles clearly outlined for this report?**

    - *The gov.uk website and Building Assessment Criteria published by the HSE provide guidance on the specific areas that structural and fire risk assessments should look to tackle, although in practice the two are often closely linked and will inform each other. The primary area of overlap is in relation to the fire resistance of structural elements, and this will typically require coordination between the fire engineer and structural engineer to ensure there is no gap. The Act and supporting guidance does not draw a clear distinction as to where relative responsibilities end as it is ultimately challenging the PAP and their team to provide sufficient justification that the risks associated with their HRB are understood and managed, so responsibility may vary case-by-case, and structural engineers will need to be receptive to this and work closely with other parties in support of the ultimate aim of the Safety Case. Guidance will be provided in the forthcoming Preparing safety case reports for higher-risk buildings under the Building Safety Act: guidance for structural engineers.*

5. **For existing buildings where the PAP has not retained information about the structure, is there an expectation/duty to deepen the search?**

    - *There is an expectation to carry out sufficient due diligence of a structure to collect "key building information" such that its framing and load paths can be clearly understood to in turn inform a meaningful risk assessment. The requirements of the Golden Thread place onus on the PAP to gather relevant information on their own building, so the burden should not fall on the structural engineer alone, but the Building Safety Regulator (BSR) would certainly expect reasonable effort to be made to obtain relevant drawings where not immediately available (say by contacting the local Building*

Control Officer, original designer if known, etc). If such steps are taken and no information can be found, the need for engineering judgement is heightened to gauge how sufficient information can be generated to inform a risk assessment. This could entail desktop study using the likes of the IStructE compendium, through to some degree of intrusive survey work, but this will vary on a case-by-case basis and will ultimately require suitable judgements to be made by the structural engineer and supporting justification within the risk assessment documentation.

6. **Does this legislation reduce the PAP/Clients ability to limit or defer the scope of investigations requested by the engineer?**
    - *The PAP has a legal duty to gather "key building information". If a structural risk assessment identifies the need for additional investigation to inform a risk assessment which is deemed proportionate and necessary to help assess and quantify risks, then there is an inherent requirement on the PAP to enable this. However, the tricky part is gauging proportionality and "all reasonable steps". Guidance is provided in forthcoming Preparing safety case reports for higher-risk buildings under the Building Safety Act: guidance for structural engineers.*

7. **Is there a concern that by exercising engineering judgement on a reasonable scope of investigations, we are taking on additional liability?**
    - *Effectively, yes, by engaging in the completion of a structural risk assessment and any associated investigation and/or providing opinions based on engineering judgement, there will be additional liability, but this is true in all cases where engineers are providing an opinion informed by the knowledge they have (such as in condition surveys, for example).*
    - *It is important to justify the level of investigation carried out in the safety case report.*

8. **Will IStructE be issuing guidance on managing structural integrity and whose scope is it to complete?**
    - *The IStructE will be issuing its guidance on Safety Case reports in August 2025, Preparing safety case reports for higher-risk buildings under the Building Safety Act: guidance for structural engineers, which will provide guidance on the role of the structural engineer within the generation of a Safety Case.*

9. **Do we know if the IStructE's definition of a structural risk is that intended with the legislation?**
    - *The IStructE's forthcoming guidance is based around the legislative definition of risk and has been developed in close discussion with experts and the BSR and in line with the guidance they have provided, so it is expected that there will be alignment on definitions and understanding.*
10. **Any influence on Bridge Structures from this?**
    - *No, the Safety Case requirement only applies to Higher Risk Buildings*
11. **How do we strike the right balance of ALARP and the BSRs MDT expectations?**
    - *The approach to risk is based on "all reasonable steps" and this is described in forthcoming guidance. The reality is that there is a fair degree of subjectivity in such judgements, and it is therefore likely that the balance will become clearer as risk assessments are produced and approved/rejected. In the meantime, structural engineers should focus on ensuring they have carried out sufficient review and assessment that they can stand by the conclusions of their risk assessments and justify any decisions that they have made should they be challenged by the BSR, in much the same way they would need to when producing calculations for Building Control.*
12. **How long do building owners have to make their building BSA 22 compliant?**
    - *Technically all HRBs should now have their Safety Cases and Golden Thread documentation in place in line with the BSA, although the BSR are calling up buildings in a phased and systematic basis informed by relative risk.*
13. **Can you confirm where we can get copies of the slides and CPD recording?**
    - *A copy of the presentation slides is not available, but the recording of the full presentation is available on the IStructE YouTube channel*