



Higher-Risk Building Registration - Case Study Presentation

Purpose

This guidance should be read alongside the Applicant Guidance for Chartered HRB Engineer and the [UK-SPEC HRB](#)

The Case Study Presentation is an in-depth practical demonstration of how you meet the HRB Competences AA-EE. Your Case Study should be of an actual project(s) that you have worked on and must be of suitable complexity to demonstrate your understanding, application and implementation of the skills, behaviours and processes required to design, construct or maintain HRB buildings.

Your case study will typically explain how you developed and executed your design, progressed your project through construction and / or operation.

You are required to submit your presentation and transcript prior to interview.

Case Study Projects

The presentation can be made up of 3 or 4 projects or aspects of projects that illustrate the competences at a deep level looking at specific events/episodes in your career.

These can be HRB projects or projects that would be classified as an HRB today. If you have a project you would like to use as an example that is not an HRB you can use that example in the context of 'were this an HRB project, this is what I would do.'

The aim is to draw out your competence, knowledge and understanding. Engineers make lots of decisions when working on buildings, the Case study should detail how they are conscious decisions with explanation as to why this decision was made.

Areas to be addressed in the Case Study Presentation

The case study presentation will demonstrate all the HRB competences and typically explain how the candidate:

- Established the fire safety principles for the building and integrated and coordinated those principles into the selection of passive and active fire protection systems with the structure and building compartmentation.
- Developed the methodology and approach to the design, construction or maintenance of the building engineering services systems and installations.
- Evaluated and integrated new technologies, products and materials etc in respect to buildability, life cycle, maintenance and de-construction.
- Identified and addressed the interfaces between and of the life safety systems and the building.
- Collaborated with the authorities, professional team, specialists, manufacturers and contractors, etc.

- Developed the specification of the systems and integrated work with the other professionals and specialists.
- Tested and commissioned the fire protection systems and verified compliance.
- Validation and compilation of operating and maintenance manuals, record drawings, system test and commissioning results and requirements of the “Golden Thread”.

Case Study Template

Your case study presentation will address your thought processes and data gathering which led you to make decisions while working on an HRB. You should reference the AA-EE criteria.

UK-SPEC HRB Case Study Template

1. Project Overview

Field	Details
Project Title	
Location	
Building Type	(e.g. 20-storey residential block; >18m HRB)
Client / Owner	
Your Role	(e.g. Lead Fire Engineer, Structural Engineer, Clerk of Works)
Project Duration	(start to end date)
Disciplines Involved	(fire, structure, services, façade, etc.)
Regulatory Context	(Building Safety Act 2022, HRB status, Regulator involvement)

2. Project Scope

- Bullet-point list of what the project entailed:
 - E.g., façade remediation, fire safety upgrades, sprinkler installation
 - Design or retrofit?
 - Safety case development?
 - Involvement of residents?

3. Demonstration of full UK-SPEC HRB Competences

AA. Knowledge and Understanding

- What codes, guidance, and standards did you use?
- How did you interpret them in the context of this HRB?
- What knowledge gaps existed and how were they addressed?
- How did your knowledge of current and emerging technology affect your decisions?

BB. Design, Development and Solving Engineering Problems

- Did you have knowledge of who had which role on the project? Eg Principal designer, architect? Did you understand each role’s responsibilities?
- What problems did you face?
- What solutions did you design or contribute to?
- Any trade-offs? Were innovative solutions needed?
- How did your understanding of human behaviours affect design decisions?
- What was the evidence and reasoning behind your decisions?

CC. Responsibility, Management and Leadership

- What responsibilities did you take on?
- How did you lead or manage safety-critical aspects?
- Did you mentor others, manage interfaces, or assure competency?

DD. Communication and Interpersonal Skills

- How did you engage stakeholders?
- Any technical-to-non-technical communication (e.g., with residents or clients)?
- How did you document and coordinate across disciplines?
- What impact did other disciplines have on your work? Were you aware of the decision processes of other disciplines involved?

EE. Personal and Professional Commitment

- How did you demonstrate integrity, ethics, or commitment to public safety?
- Any CPD, self-development, or professional registration activities?
- How did you embed long-term safety (e.g., Golden Thread, operational phase planning)?

4. Outcomes and Impacts

- What was achieved?
- Was the building safer, more compliant, better maintained?
- Did you ensure that the products/components and systems were suitable for the building?
- What feedback did you receive (from client, regulator, residents)?

5. Lessons Learned

- What challenges would you handle differently next time?
- What key lessons emerged for HRBs?
- Any broader implications (e.g. future-proofing, regulatory engagement)?

6. Conclusion

- Reflect on your professional growth
- What behaviours did you demonstrate to ensure you are confident your building meets the required standards, and will continue to meet these standards?
- Summarise how this case supports your UK-SPEC HRB competence
- Link to broader ethical or safety commitments

Optional Appendices

- Any relevant Calculations
- Drawings / diagrams
- Excerpts from safety case or fire strategy
- CPD log
- Photos or BIM screenshots
- Evidence of outcomes (compliance letter, regulator comments, etc.)