



May 2025

Why BSR's work is so important

Case study: Building Control

Background

In late 2024, a newly constructed high-rise residential building was undergoing final safety inspections before occupation.

Designed to meet modern safety standards, the building required thorough review by regulatory bodies, including the Building Safety Regulator (BSR) and the London Fire Brigade (LFB).

Given the complex nature of high-rise tower block safety, this review aimed to ensure that all fire safety systems, evacuation measures, and firefighting provisions met the highest standards before residents could move in.



Challenges identified

During an inspection by the Principal Fire Engineer at LFB, critical issues were discovered and identified across multiple fire safety systems.

Key concerns included:

- **Firefighting facilities:** Inadequate compartmentation in risers, unsecured riser doors, incorrect lift operation in emergency scenarios, and ineffective communication systems in firefighting lifts.
- **Fire suppression systems:** Non-compliance with sprinkler system standards, inadequate water supply to upper floors, and potential failure of pumps due to incorrect installation.
- **Smoke control issues:** Ineffective smoke extract in residential corridors and basement areas, risking firefighter safety and reducing visibility in an emergency.
- **Power and emergency systems:** Non-diverse routing of primary and secondary power supplies, leading to increased failure risk in fire conditions.
- **Wayfinding and evacuation measures:** Missing or unclear wayfinding signage, lack of an evacuation lift, and a single stairwell design, creating potential bottlenecks in an emergency.

With such significant deficiencies identified, BSR immediately worked closely with the developers, fire safety engineers, and LFB to ensure full remediation before occupation could be permitted.



Sign up for regular updates from
the Building Safety Regulator



BSR's role in resolving issues

They used the results of the survey to inform the development of their engagement strategy for the block. The information gathered ensured their strategy met the specific needs and preferences of the residents of that block.

Building Safety Regulator's building control function played a pivotal role in ensuring that these critical safety issues were systematically addressed before the building was approved for residents to move in.

The process included:

Rigorous inspection and verification:

- BSR conducted additional site inspections, cross-checking findings with LFB assessments to ensure that all fire safety measures aligned with the Building Safety Act 2022 and Approved Document B requirements.
- Independent fire safety engineers were brought in to validate the integrity of passive and active fire protection systems.

Enforcement and compliance measures:

- The regulator blocked occupation approval until all deficiencies were fully rectified, ensuring that residents would not be placed at risk.
- Formal compliance notices were issued to developers, requiring adherence to BS 9991, BS EN 81-72, and BS 9251 fire safety standards.

Collaborative problem-solving:

- BSR facilitated technical discussions between developers, fire engineers, and LFB, leading to practical solutions for complex safety concerns, including:
 - ▣ Smoke control inefficiencies that required extensive system modifications.
 - ▣ Sprinkler system deviations that necessitated design reviews and upgrades.
 - ▣ Re-testing and full recommissioning of all fire safety systems was mandated by BSR before approval was granted.

Enhancing future safety standards:

- The case reinforced the need for stricter enforcement of fire safety rules in new high-rise developments.
- BSR used the findings to inform and update future policy updates and best practices, strengthening policy guidance for developers and building control professionals.



**Sign up for regular updates from
the Building Safety Regulator**



Outcome: A safer building for residents

Following BSR's intervention, the developers implemented all the required corrective actions, including:

- Securing all firefighting riser doors to maintain compartmentation integrity.
- Reconfiguring firefighter lift controls to prevent unsafe lift operation in fire emergencies.
- Upgrading the smoke control system to ensure effective smoke extraction and fire containment.
- Installing a fully operational, standards-compliant sprinkler system that effectively covered all residential areas.
- Enhancing wayfinding signage and ensuring power supplies were correctly separated to reduce fire risk.

Once all systems were re-tested and certified, BSR granted final approval for occupation, ensuring that residents moved into a building that met the highest safety standards.

Conclusion

This case highlights the critical role of BSR in holding developers accountable for fire safety compliance.

By preventing occupation until all major deficiencies were resolved, BSR demonstrated its commitment to prioritising resident safety and strengthening the UK's building safety culture.

The case also reinforced the importance of collaboration between fire engineers, developers, and BSR in achieving truly fire-resilient buildings.

The lessons learned from this intervention will help shape future enforcement actions, ensuring that new high-rise developments adhere to the strictest safety standards from design to completion.



**Sign up for regular updates from
the Building Safety Regulator**

