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Health and Safety

Fire Safety

Fire Sprinkler Policy

SAF-POL-SPR

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Health and Safety Department
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The Health and Safety Department will maintain the official version of this document. Before referring to any printed copies, please ensure that they are up-to-date.

Fire Sprinkler Policy

University policies establish standards and expectations for health and safety across the organisation and set the minimum standards expected.

Each working unit, which may be a Department, Site, Institute or School and will be referred to as a Business Unit in this policy, can produce its own arrangements, in order to locally implement these standards. Any standard(s) imposed at a local level must meet all requirements set out in this policy. Where there is a discrepancy, the University policy takes precedence.

1. Regulatory background

Following the Grenfell fire disaster of 2017, the regulatory landscape for fire safety has changed across the United Kingdom. Following the inquest and investigation, the Fire Safety Act 2021 and the Building Safety Act 2022 have been passed, with future secondary legislation planned and in development.

In the UK, during the building process, a new build must comply with the Building Regulations 2010 (Amended). This sets out the minimum required standard for safety within a new build. However, as an institute at the forefront of research, we should not just be meeting the basics of building safety but should be looking ahead to the varied and diverse work that our research community undertake. Therefore, the addition of sprinklers above and beyond that of the existing regulation demonstrates the commitment of the institute to the future of its staff, students and environment.

Legislation on the installation of sprinklers has recently changed, with sprinklers now required to be installed within accommodation blocks over 11m in height. All new accommodation buildings in Wales and Scotland are now required to install sprinklers and this appears to be in development as a requirement for England in the future.

2. Sprinkler Policy Statement

Sprinklers are an active fire safety measure which work to control and contain a fire by automatically putting water on to a fire. They are activated by the heat of a fire and therefore should only activate when subjected to sufficient heat – meaning that false activations are unlikely. In addition, as they are activated by heat, only the sprinklers near the fire will activate – not the entire system.

The university has an aging building infrastructure, some of which was constructed at a time when the regulations were different to that of today. The installation of sprinklers is a recognised way of reducing intrusive works that may need to be undertaken during a refurbishment as well as providing an offset to areas within the building that do not currently meet the Building Regulations.

The insurance market is also getting harder for all higher education facilities in the UK – by installing sprinklers, this demonstrates that property protection is part of the university commitment. The

presence of sprinklers in new and refurbished buildings makes insurers more willing to accept the risk on the University's property insurance policy without the imposition of increased premium rates or excess. This particularly applies to non-traditional constructions.

The UK is also behind the rest of the world when it comes to the uptake of sprinklers, and as an institution with staff, student and visitors from many international countries, the installation of sprinkler systems will provide additional peace of mind that the university takes safety seriously to these occupants who come from countries where sprinklers are installed as standard.

From date of publication, the University should install a British Standard compliant sprinkler system that complies with one of the following standards when the new build or refurbishment meets any of the criteria within this policy:

- **BS EN 12845**: Fixed firefighting systems - Automatic sprinkler systems - Design, installation, and maintenance
- **BS 9251**: Sprinkler systems for residential and domestic occupancies. Code of practice
- **BS 8458**: Fixed fire protection systems – Residential and domestic watermist systems – Code of practice for design and installation

Sprinklers should be installed in building that meet any of these criteria:

- As required by the Building Regulations; or
- Where the current edition of the Building Regulations would require sprinklers in a building that is going through deep 'back to shell' refurbishment (consequential improvements to fire safety); or
- All new buildings with a value at risk figure of £25 million inc VAT or higher; or
- In all new accommodation that contains sleeping; or
- As required by the university insurers; or
- Deep 'back to shell' refurbishment of halls residence; or
- Where property protection is considered an important factor in the design and use of the building.

All sprinkler systems should be designed and installed in accordance with the latest version of the British Standards at the commencement of the design phase of the project.

3. Scope

The scope of the policy applies to all university buildings – either new or refurbished.

4. Deviation from this policy

Any proposed deviations to the installation of sprinklers should be discussed with:

- Fire Safety Advisor – Health and Safety Department
- Insurance Manager – Finance
- Project Management Group (if formed)

A fire engineered solution may be permissible, subject to discussion.

This should then be raised with the Fire Safety Group, which is a sub-committee of the university Health and Safety Committee, for final approval.

It may be required that an alternative to sprinklers is required, due to the risk of the research/items being used within the building. This then should be discussed as a deviation from this policy.

5. Monitoring and Inspection

Once the sprinklers are installed, then maintenance and Planned Preventive Maintenance (PPM) need to be undertaken on them in accordance with the British Standard of the sprinkler system installed.

In addition, the insurers may have additional requirements that need to be met and therefore should be consulted at an early stage.

Appendix 1 - Guidance

This appendix aims to provide some guidance on the installation criteria.

As required by the Building Regulations

Building Regulations may put a requirement on the project to install sprinklers as part of the design. In this instance, this item is compulsory and there is no discussion possible on whether to install sprinklers or not.

Where the current edition of the Building Regulations would require sprinklers in a building that is going through deep 'back to shell' refurbishment

In the past, Building Control have accepted the principals of making things "no worse than existing" to meet Building Regulations on a major refurbishment. It is felt that this does not meet the university strategy by failing to meet the Ambition value (*We set the highest standards for ourselves and our work and support each other to achieve them*) as the principle of no worse does not meet the newer, higher standards that have evolved over time; and failing the Risk category of the enablers of the strategy (*We will encourage boldness and innovation while keeping our community safe in both the physical and virtual worlds*) by not taking in to account the changes and developments of risk since the building was originally built.

All new buildings with a value at risk figure of £25 million or higher

Potentially the most contentious, this criterion is put in to place to try and protect the largest investments that the university make, in line with the university strategy. Whilst the £25 million will only be a figure chosen in time, this should be decided during the design of the building. The value at risk figure is the value that the university insurers are covering the building for and will include the construction value (i.e. cost to rebuild the building) and the contents (i.e. everything in it).

A building of this size will have a Project Management Group, reporting back to the Estates and Infrastructure Committee. This group should look at the value at risk as part of the work. This will require the Estates Office to provide the cost of the build and will require the project specific representatives to calculate the cost of the contents.

Contents includes, but is not limited to:

- IT equipment – i.e. IT equipment in use by the business unit. DTS active equipment is included in the build costs.
- Faculty/Departmental equipment and instruments
- Fixture and furnishings that the business unit is procuring separately
- Anything that will have a cost to replace in event of a fire

The value at risk figure does not include business continuity interruption.

In all new accommodation that contains sleeping

Our sleeping accommodation are the highest risk buildings for the university in terms of life risk, due to the nature of the accommodation (sleeping occupants) and therefore to reduce the risk as low as reasonably practicable, we will install sprinklers in new accommodation.

As required by the university insurers

The university insurers may require that sprinklers are installed as part of the design, especially in cases where modern method of construction are used, even if not required for Building Regulations. Insurers may impose additional excesses or in the worst case, refuse insurance, on the project if their wishes are not met.

Deep 'back to shell' refurbishment of halls residence

The main consideration is to install sprinklers in the halls of residence as part of Project Stay. Any new accommodation buildings will be covered by the criteria above, but this covers the retrofitting of sprinklers into the halls during major refurb of the halls.

Where property protection is considered an important factor in the design and use of the building.

It is likely that where this is the case, the building may well meet the criteria of the value at risk criteria above but this covers cases where this might not be the case. Examples may include a specific data centre or similar, where it is business critical but doesn't meet the value threshold.