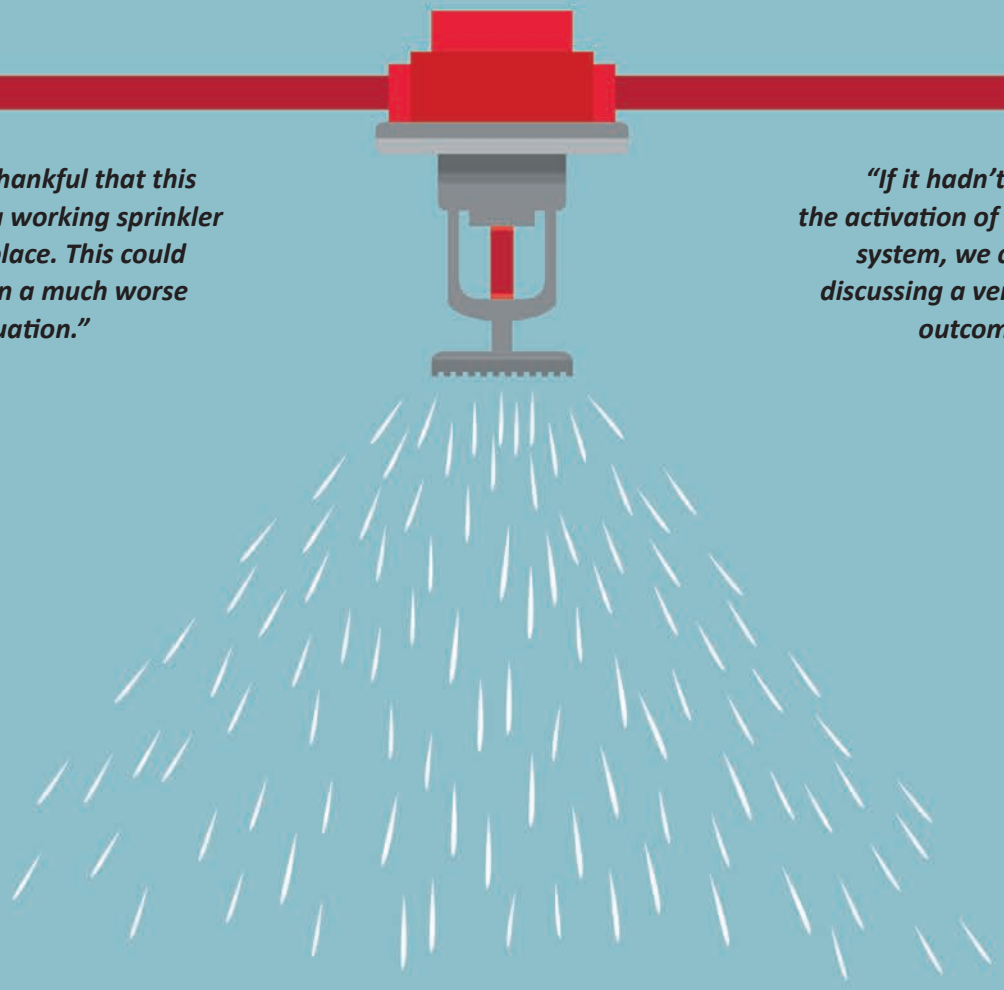
"We are thankful that this building had a working sprinkler system in place. This could have been a much worse situation."

"If it hadn't been for the activation of the sprinkler system, we could be discussing a very different outcome"



British Automatic Fire Sprinkler Association

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Sprinkler Saves Review 2024–2025

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Foreword

I am delighted to welcome you to the Sprinkler Saves Review for 2024-25.

The review comes a year on since the National Fire Chiefs Council (NFCC) published our updated policy position statement on automatic water suppression systems (AWSS), but we have long championed their use in the built environment and consistently advocated for their installation to be a requirement in specific types of premises.

Put simply - sprinklers save lives and reduce injuries. They have been used for over a century and are consistently reliable, protect property, reduce the cost of repairs, and minimise the environmental impacts of fire. Sprinklers can also buy crucial additional time in firefighting operations which may mean that evacuations are not always necessary. Analysis has shown that they are 99% effective in extinguishing or controlling a fire and 94% reliable in their ability to operate across all building types.

While we have seen some significant progress in recent years – the reduction of the height threshold for the installation of sprinklers in new residential buildings to 11 metres in 2019, and the announcement last year that sprinklers will be mandatory in all new care homes – the pace of change has not been fast enough.

In England, the regulations covering sprinklers lag behind the rest of the UK. In Scotland, sprinklers are required in all blocks of flats, care homes, social housing, and schools. Wales requires sprinklers in all new single dwellings, including all new care homes, student halls of residence, boarding houses, and certain hostels. While NFCC welcomed the lower height threshold for sprinkler installation in new residential buildings to 11 metres, there is still no requirement to retrofit existing residential buildings with sprinklers. We have now also faced nearly ten years of different consultations on the guidance for fire safety in schools but with no decision on strengthening or updating the existing guidance.

In bringing together and sharing real life examples of where sprinklers have had an impact, Sprinkler Saves has become a vital resource in helping to demonstrate the difference they make, to drive culture change and influence decision-makers, building owners and all those who have a role in determining where sprinklers are installed.

The role of fire and rescue services in reporting sprinkler activations from fire incidents they have attended to the BAFSA team is also essential to make sure that as many examples of sprinkler saves is captured and can be used to build that case for change.

I know that you will find this review an inspiring read – it is packed with evidence and examples that show the difference that sprinklers make. If you hear of an incident where sprinklers have been present, please do report it so that it's captured and used in the year ahead.

Phil Garrigan OBE KFSM
Chair, National Fire Chiefs Council (NFCC)

"In bringing together and sharing real life examples of where sprinklers have had an impact, Sprinkler Saves has become a vital resource in helping to demonstrate the difference they make"

"The effectiveness of water-based fire suppression is supported by robust statistical analysis and independent research - its value is beyond question. Yet what the data alone cannot convey is the real, human impact behind every activation. Each of these sprinkler saves represents a moment where lives, livelihoods, and properties were protected. These are not theoretical outcomes - they are verified instances where fire sprinklers have played a vital role in controlling or extinguishing fires. In doing so, they have minimised damage, safeguarded businesses and the environment, and most importantly, saved lives. These stories bring the statistics to life, offering powerful insight into the true, life-changing value of water-based fire suppression systems."

Ali Perry Chief Executive Officer
British Automatic Fire Sprinkler Association (BAFSA)

An overview

The purpose of this review is to demonstrate the vital role Automatic Water Suppression Systems (AWSS) play in protecting our communities from fire as part of a package of fire safety measures.

By highlighting real life, tangible examples of where they were present and had an impact for the financial year 2024/2025. The term AWSS refers to sprinklers and watermist systems within this review. As such, each of these stories provides powerful evidence of the ability of AWSS in mitigating the impact of fire on people, property and the environment, reducing the risks to firefighters.

This collection of sprinkler saves, collated by The British Automatic Fire Sprinkler Association (BAFSA) from primary fire data, supplementary information provided by our Fire Rescue Service and, sprinkler industry colleagues across the United Kingdom, make this the only available report in the UK that demonstrates the difference AWSS make during a fire incident.

Note: A sprinkler save is categorised as where one or more sprinkler heads have activated and contained, controlled or in some cases, extinguished a building fire.

The review uses information collated from:

- 72 Primary fires reported to BAFSA for the financial year ending March 2025, in which AWSS were reported as present and having an impact. The reported incidents span a wide range of building types and occupancies.
- Primary fire data where AWSS were reported as activated and having an impact for 2018/19 to 2023/24. This was obtained from a freedom of information request to the respective teams collating fire incident data for England, Scotland, and Wales.

What is Sprinkler Saves?

BAFSA's Sprinkler Saves project's main aim is to raise awareness of how the destructive effects of fire can be mitigated, and in most cases, be prevented through the enhanced use of AWSS.

We do this by encouraging Fire Rescue Services (FRS) and our sprinkler industry colleagues across the UK to report all forms of sprinkler activations including watermist from fire incidents they have attended to the Sprinkler Saves website – www.sprinklersaves.co.uk where each incident is documented, identifying the impact, benefits of the AWSS.

The details of these incidents are a valuable tool in addressing myths and misconceptions regarding their safety and efficiency and providing evidence of the ability of AWSS to protect our communities from fire.

Providing vital evidence of the reliability and effectiveness of AWSS adding further weight to the two reports conducted by Optimal Economics [1] and commissioned by the National Fire Chiefs Council (NFCC), National Fire Sprinkler Network (NFSN) into the performance, reliability, and effectiveness of sprinkler systems in controlling and extinguishing fires.

The reports found that:

- Sprinklers are 99% efficient in extinguishing or controlling a fire.
- Sprinklers are 94% efficient in their ability to operate.
- Sprinklers also have a role to play in reducing harm and protecting vulnerable people, supporting the case for a greater inclusion of sprinklers in purpose-built block of flats.

The aim of the installation of a life safety AWSS is to.

- Reduce the spread of heat and smoke, allowing more time for the occupants to escape to safety or be rescued.
- The provision of a AWSS does not negate the need for other fire precautions or provisions, particularly where occupants of buildings may be at a higher- than-average risk from fire.

Fire sprinkler activations are the most reported activation to Sprinkler Saves UK, in comparison, reports of watermist activations in land-based systems are still comparatively rare. Sprinkler Saves encourages the reporting of all forms of AWSS.

For the period from 2010/11 to 2022/23[2], 11% of fire incidents where AWSS are reported by the fire services attending primary fires in England are reported to have watermist present.

It is envisaged that year on year the number of reported incidents to Sprinkler Saves UK, will increase. This is due to several reasons, including changes in regulatory guidance requiring the installation of AWSS.

- Reducing the building height at which sprinklers are required to 11m in purpose-built block of flats in England.
- All new purpose-built residential care homes fitted with sprinklers regardless of height.
- The rise of retrofitting sprinkler projects in large scale residential/multi-occupied buildings, due to the focused attention on fire safety in the aftermath of the Grenfell Tower fire.

We will stimulate growth in reporting through the:

- Appointment of a designated sprinkler saves coordinator.
- Increased communication of the reporting of AWSS activations via multiple communication channels.
- Publication of reports that will provide a detailed analysis of compound data on fire incidents in Great Britain where AWSS are identified as present or activated.
- Continued development of partnership working with our FRS and, sprinkler colleagues.

This strategy will

- Promote a better understanding of the benefits of AWSS in the wider community, fire safety sector in general as an effective and reliable fire protection measure as part of a package of fire safety measures protecting life, property from fire.
- Educate, inform the FRS of the benefits of AWSS allowing the business-as-usual service to be maintained by reducing the impact of major fire incidents allowing the release of resources to provide an effective response to attend other emergencies.
- Influence policy makers in government for change advocating the use of AWSS in all buildings, we are concerned about including but not limited to.
    i. Specialised housing
    ii. Other residential properties which include Student accommodation and hotels
    iii. Schools
    iv. Hospitals
    v. Storage and Warehouses
    vi. Carparks

"It cannot be stressed how important active systems such as fire sprinklers are. Providing effective fire protection requires a balanced approach to the provision of both passive and active elements. The use of a combined approach plays a significant role reducing the impact of fire on people, reduce the risk to firefighters, property, the environment and increase sustainability."

Nick Coleshill
BAFSA Sprinkler Ambassador

Nick Coleshill Coordinates the Sprinkler Saves Website for BAFSA, any questions or enquires can be submitted to nick.coleshill@bafsa.org.uk

Sprinkler Saves by Month April 2024 – March 2025

A sprinkler save, case study has been chosen for each calendar month focusing on a broad range of buildings and environments where sprinklers were reported as present and having an impact.

April 2024 – Norfolk domestic living room fire

- Occupancy: Dwelling.
- Fire Rescue Service: Norfolk Fire and Rescue Service. (NFRS)
- Incident: Muti-seated fire.
- AWSS: Sprinklers

The decision taken by the social landlord to install a domestic sprinkler system within a dwelling protecting a vulnerable community member from fire as part of a package of fire safety measures should be applauded following a multi seated fire.

On arrival, fire crews identified that one concealed sidewall sprinkler head actuated within the bathroom, extinguishing a fire within a bath tub involving textiles and, clothing. The tenant was helped to a place of safety.

A further seat of fire was identified within the living room which was extinguished by firefighting crew using firefighting media. It was established that the resident had tried to extinguish the fire within the living room by removing the textiles/clothing which were alight to the bath tub in the adjacent bathroom.

The circumstances regarding the activation of the sprinkler system are not conclusive as limited fire growth was reported within the bathroom allowing the sprinkler head to activate. It is reported that the tenant was physically trying to silence the premises' fire alarm before the arrival of NFRS. It seems the occupier mistook the alarm for the sprinkler head, causing it to activate.

The benefits following the activation of the sprinkler system.

1. Reduced the heat output from fire by reducing its growth, containing, controlling or in this case extinguished the fire within the bath tub.

Sidewall sprinkler head
Credit: ReCom fire protection ltd

Bathtub containing textiles/clothing
Credit: ReCom fire protection ltd

2. Initiated the appropriate emergency response as the sprinkler system was connected to an alarm receiving centre allowing the FRS to be mobilised.
3. Allowed more time for the occupant to be assisted from the dwelling by firefighters.

May 2024 – Stowmarket residential block of flats open sided car park fire

- Occupancy: Car park.
- Fire Rescue Service: Suffolk Fire and Rescue Service. (SFRS)
- Incident: Motorbike fire.
- AWSS: Sprinklers.

The dangers of car park fires are well documented following the high-profile incidents involving both The Liverpool Echo Arena and London Luton Airport multi-storey car park fires which resulted in both buildings being demolished following the fires where sprinklers were not fitted.

BAFSA is aligned and supports the NFCC view that

- AWSS are the most effective way to ensure fires are controlled/contained or in some cases extinguished before the arrival of the FRS within car parks.
- The provision of AWSS should be made mandatory for new enclosed car parks including open sided, basement or automated, lobbying for a change in national guidance and legislation.
- The existing recommendations for fire safety measures in the construction of car parks, as outlined in Approved Document B of the Building Regulations does not currently mandate the inclusion of sprinkler systems. Instead, reliance is place upon smoke ventilation either natural or mechanical.

SFRS were mobilised to a fire involving a motor bike in an open sided basement car park below a residential block of flats. On arrival It was identified that six sprinkler

Basement car park fire Credit BM Image Sprinklers (image taken following reinstatement of the sprinkler system)

heads activated supressing the fire preventing further fire spread, fortunately no other motor vehicles were located adjacent to the motor bike with minor fire damage reported to light fittings, electrics located above the seat of the fire. No injuries were reported.

It was reported that sprinklers were installed due to SFRS recommending that a sprinkler system was included in the design within the dwellings and car park as a compensatory trade off measure as the guidance within Approved Document B for, B5 could not be complied with. This incident provides further evidence on the benefits of installing sprinklers for car parks.

June 2024 – London housing bathroom fire

- Occupancy: Specialised Housing.
- Where: London.
- Fire Rescue Service: London Fire Brigade. (LFB)
- Incident: Bathroom fire.
- AWSS: Sprinklers.

This incident reaffirms the effectiveness of AWSS providing a high level of fire protection as part of a fire safety strategy tailored for vulnerable residents and long-term older individuals. Future-proofing residents' accommodation is essential to accommodate the potential effects of aging on mobility, sensory faculties and cognitive abilities.

Fire crews were dispatched to a fire within a three-story specialised housing scheme comprising of 35 flats. Upon arrival, it was determined that the fire originated within a bathroom/toilet, activating the residential sprinkler system.

The sprinkler system head that activated was installed on the same floor as the fire, not in the room of origin. One resident required further medical attention, the cause of the fire is pending the findings of the fire investigation team.

BAFSA recommends that sprinklers are installed in accordance with the guidance contained in BS9251:2021. This standard extends the provision of sprinklers to certain bathrooms, shower rooms, and toilets.

July 2025 – South Wales tall building fire

- Occupancy: Purpose built block flat 10 or more storeys.
- Fire Rescue Service: South Wales Fire and Rescue Service. (SWFRS)
- Incident: Kitchen Fire.
- AWSS: Sprinklers.

Catherine Love, Bron Afon Director of Operations and Deputy Chief Executive said, "Sprinkler systems are the most effective way of fighting fire and preventing loss of life. We are proud that this work is setting an example as the most challenging of its kind in the UK."

The Bron Afon Community Housing Association should be commended for its pioneering leadership in fire safety. In 2011, they made the decision to retrofit sprinklers in one of their high-rise residential blocks, following lessons learned from previous fires in high-rise residential blocks.

This initiative set a precedent in Wales, inspiring other housing providers to adopt similar measures.

Kitchen fire. Credit: Bron Afon

Thirteen years later, the sprinkler system within this 12-storey residential block of flats activated following a fire.

Upon arrival, the incident commander (IC) determined that the fire was confined to a flat on the first floor of the building. Upon entering the dwelling, operational crews ascertained that a fire within the kitchen involving a chip pan had been contained, controlled and extinguished by the activation of one single sidewall sprinkler head.

Two residents voluntarily evacuated their flat prior to the arrival of the SWFRS with no injuries reported. Minimal fire and smoke damage was reported within the compartment of origin.

This incident once again refutes the misconception that residential sprinklers should not be used as an extinguishing medium for chip pan fires.

August 2024 – Brighton flat fire

- Occupancy: Assisted living complex.
- Fire Rescue Service: East Sussex Fire and Rescue Service. (ESFRS)
- Incident: Bedroom fire.
- AWSS: Sprinklers.

Station Manager Louisa Curtis, of East Sussex Fire and Rescue Service, Brighton & Hove Fire Safety Team Manager, said: "ESFRS have consistently promoted for the installation of sprinklers, it is a simple, cost-effective way to save more lives and reduce the risks to firefighters. Fire sprinklers are the only active fire system which detects a fire, suppresses a fire and raises the alarm. This incident demonstrates sprinklers provide protection from fire damage but most importantly provide time for people to safely self-evacuate if there is a fire."

This was the third reported flat fire within this complex in the space of 29 months. Each time the fire was contained and controlled or extinguished with limited fire damage, and no injuries reported.

On arrival fire crews established a fire within a flat bedroom had been contained/ controlled by the activation of one concealed sprinkler head. The seat of the fire involved the bed mattress/bedding, which was extinguished by firefighters.

The cause of the fire was determined to be an electrical fault involving the electric heat pad that caught fire, igniting the mattress and bedding which was contaminated with emollient.

This is the second reported fire sprinkler activation reported to Sprinkler Saves UK, where it was identified that the resident used emollients that are easily transferred from skin to clothing and items such as towels and bedding. On both occasions the fire was

Credits: ESFRS

either contained, controlled or extinguished by the activation of the sprinkler system.

The risk arises when these emollients are absorbed into fabrics and then exposed to naked flames or heat sources. Scientific testing has shown that fabric burns quicker and hotter when contaminated with emollients. These fabrics include clothing, towels, bandages, and bedding. FRSs are actively promoting the need for awareness of the dangers of using emollient creams within their local communities

September 2024 – Greater London reported sprinkler activations

- Occupancy: Purpose built flats – 10 or more storeys
- Fire Rescue Service: London Fire Brigade (LFB)
- Incident: Tall building residential fires
- AWSS: Sprinklers.

Our gratitude to LFB for their ongoing support, playing a key leadership role in promoting the benefits of AWSS. Actively supporting the NFCC who encourage fire services to collate, provide fire data and case studies to Sprinkler Saves UK.

Reporting incidents taken from the Incident Recording System (IRS) where sprinklers were reported as present and having an impact in Greater London.

Two incidents were reported involving residential purpose-built block of flats where sprinklers had an impact. On each occasion the fire was either contained, controlled or extinguished by the sprinkler system. Demonstrating that a correctly designed and installed sprinkler system can detect, raise the alarm and control, or in this case, extinguish a fire at an early stage of development.

Fire crews were mobilised to a fire within a second floor flat, on arrival the IC established that a fire within the living room had been extinguished by the activation of one sprinkler head. The cause of the fire was identified to involve a tea light/candle setting light to textiles confining fire spread to the item first ignited, one person received minor injuries.

The second incident involved an apartment fire on the second floor which was contained/ controlled by the activation of one concealed sprinkler head, the fire was extinguished on arrival be firefighters using a main jet. The seat of the fire was identified to be within a cupboard and thought to be electrical in origin, with fire spread limited to the item first ignited.

October 2024 – London kitchen fire

- Occupancy: Temporary accommodation.
- Fire Rescue Service: London Fire Brigade. (LFB)
- Incident: kitchen fire.
- AWSS: Sprinklers.

The landlord should be applauded for implementing a package of fire safety measures prioritising the installation of sprinklers in its temporary accommodation building property portfolio providing a further layer of protection from fire for their most vulnerable residents of their communities.

This decision was justified following a kitchen fire involving cooking which was contained to the room of origin following the activation of one sprinkler head which extinguished the fire with no injuries reported.

When comparing this incident to a non-sprinklered tall building fire in Croydon used for temporary housing in October 2022, the outcome was so different. London Fire Brigade reported that 100% of the three roomed flat on the second floor was damaged by fire with 50% of the second-floor common ways damaged by fire. Ten people evacuated before the arrival of the brigade, fire crews wearing breathing Apparatus rescued two woman and one child using fire escape hoods.

November 2024 – Doncaster bedroom fire

- Occupancy: Purpose built block flat 10 or more storeys.
- Fire Rescue Service: South Yorkshire Fire and Rescue. (SYFR)
- Incident: Bedroom Fire.
- AWSS: Sprinklers.

Roger Brason, SYFR sprinkler advocate, “We’ve championed the use of sprinklers, particularly in high-rise buildings, for quite some time, so we’re delighted that all of the blocks in Doncaster now have them.”

“These devices not only help protect life but help protect property too. In most cases, they will extinguish a fire completely and prevent it from spreading any further. The fact that people living in high-rise buildings across Doncaster now have such a high level of fire protection really is excellent news”

Fire crews were mobilised to reports of a fire involving a tall residential building. On arrival the IC established that the seat of the fire was within a third floor flat which had been contained/ controlled by the activation of one sprinkler head.

The tenants were unable to self-evacuate from the flat as the fire had compromised their means of escape, proceeded to sought refuge on the external balcony following fire survival guidance received from SYFR control until rescued by fire crews.

The fire, which started in the bedroom, was caused by an electric heater placed too close to the bed/bedding, activating the sprinkler head which contained the fire to the room of origin. Minor superficial fire, heat damage was sustained to the room of origin with no further firefighting required.

Credits: SYFR

December 2024 – Gloucestershire bedsit fire

- Occupancy: House of multi-occupancy.
- Fire Rescue Service: Gloucestershire Fire and Rescue Service. (GFRS)
- Incident: Lithium Battery Fire.
- AWSS: Sprinklers.

Obi Selassie, GFRS Station Manager "If it was not for the activation of the sprinkler system extinguishing the fire before the arrival of the fire service, we could be discussing a different outcome for this incident, The benefits of sprinklers should not be underestimated they save lives and reduce injuries, protect firefighters."

The growing risk of e-bike and e-scooter fires involving lithium batteries should not be underestimated. These fires can spread rapidly and develop into larger fires within a short period of time, potentially leading to significant uncontrollable runaway fires.

Fire crews were mobilised to a fire within a ground floor studio bedsit. Following the completion of a dynamic fire risk assessment the IC identified that one sprinkler head had activated containing/ controlling and extinguishing the fire involving a e-bike lithium battery which had been left on charge. 10% fire/heat damage was reported in the vicinity of the fire and the resident had self-evacuated from the premises prior to the arrival of GFRS.

This incident provides further evidence that the main functional objectives of a life safety sprinkler system were achieved.

- Reducing the rate of heat and smoke, containing and controlling the fire
- Reducing the likelihood of a fire spreading beyond the room of origin
- Firefighters operated without due risk to either effect rescue or assist evacuation
- Prevent conflagration

A similar fire reported by LFB resulted in a e-bike battery explosion which destroyed a family home days before Christmas highlighting the catastrophic consequences that can occur if e-bikes and e-scooters are not charged or stored safely. Sprinklers were not installed.

Footage from a doorbell camera captures how quickly the property became engulfed in fire. Three people were inside the house when the e-bike battery burst into flames on the first floor. One person escaped unharmed through the front door, but two others in a converted loft were forced to climb through a skylight on to the roof. One male fell from the roof and suffered serious injuries, while a woman slipped but was caught by a firefighter and later treated for smoke inhalation.

Credit: LFB

Despite sprinkler protection of lithium batteries being outside the scope of current sprinkler design standards, this incident demonstrates that a sprinkler system can contain and help, control a e-bike lithium battery fire.

January 2025 – Warwickshire commercial fire

- Occupancy: Supermarket
- Fire Rescue Service: Warwickshire Fire and Rescue Service. (WFRS)
- Incident: Toilet fire.
- AWSS: Sprinklers.

Matthew Pardoe, Warwickshire Fire Rescue Service Station Manager says:

"If it was not for the prompt activation of the store sprinkler system containing, controlling and in this case extinguishing the fire, we could be discussing a different outcome for this incident. These types of premises contain high fire loading with unique fire hazards due to the large amounts of stock stored on site increasing the risk of rapid fire spread in the event of a fire. The benefits of sprinklers should not be underestimated they save lives and reduce injuries, protect firefighters."

Two fire appliances were mobilised to reports of a fire within a large retail supermarket, discovered by staff in the vicinity of the first-floor toilets. The alarm was raised by staff manually activating the premises fire alarm system. The store was evacuated with no injuries reported before the arrival of WFRS.

On arrival the IC established that the fire had been extinguished on the first floor of the premises by the sprinkler system, enquires are ongoing by Warwickshire Police to establish the cause of the fire.

Disappointingly, no mention was made in the local press regarding the positive role of the sprinkler system which allowed a successful conclusion to this incident. The danger of retail supermarket fires should not be underestimated Firefighters in Gloucester were put at risk when tackling a superstore fire in 1996 in Staple Hill which sadly resulted in the loss of life firefighter Fleur Lombard, on this occasion sprinklers were not fitted.

At present regulatory guidance indicates the use of fire sprinkler systems in new single-storey supermarkets and superstores with an uncompartmented area greater than 2000m2

February 2025 – Fleet residential electrical cupboard fire

- Occupancy: Converted flat/maisonette, multiple occupancy.
- Fire Rescue Service: Hampshire and Isle of Wight Fire and Rescue Service.
- Incident: Electrical cupboard fire.
- AWSS: Sprinklers.

A small fire in an electrical cupboard was contained, controlled by the passive and active fire safety measures. The closed electrical cupboard fire door prevented the fire from spreading from the room of origin, one sprinkler head activated within the cupboard controlling and extinguishing the fire before the arrival of the emergency services.

The sprinkler system reduced the fire's heat output and growth, providing more time for the occupants to escape to safety or be rescued. No further firefighting media was required with no injuries reported.

Credit: Hampshire & Isle of Wight Fire and Rescue Service

Credit: Hampshire & Isle of Wight Fire and Rescue Service

When you compare this incident to a similar electrical flat cupboard fire in a residential block of flats London in May 2021 involving a residential tall building where sprinklers were not installed, the outcome was far different. The fire on that occasion resulted in the attendance of 20 pumps with 80% of the flat damaged by the fire and 67 residents' self-evacuating prior to arrival of the FRS. Major incident declared by LFB resulting in the mass evacuation of the block.

March 2025 – London Commercial Kitchen Fire

- Occupancy: Pub/wine bar/bar
- Fire Rescue Service: London Fire Brigade (LFB)
- Incident: Kitchen fire
- AWSS: Drencher

A fire within a commercial basement kitchen involving a cooking pan left unattended resulted in the attendance of 25 firefighters to control, extinguish the fire which damaged the kitchen and the ducting. It is reported that a drencher system was present having an impact containing controlling the fire.

The benefits of fixed firefighting systems controlling a fire has been proven to protect property, business and jobs with the impacted business operational within hours, avoiding the economic and social costs.

Further enquires would have to be made with LFB regarding the IRS primary fire data recorded for this incident as a drencher system is designed primarily for exterior fire protection. Typically, in commercial kitchens fixed firefighting systems such as wet chemical systems are used for object protection, kitchen areas, fryers, oil cookers etc and not used for area wide protection of a building.

The benefit of installing wet chemicals is that they provide excellent flame knockdown and surface cooling the scope of kitchen protection should include all appliances that are capable of catching fire and not just the deep fat fryers, protection should cover ventilated ceilings/hoods, plenums and duct entrances and should be activated simultaneously.

Focus on common fire locations: student accommodation, kitchens and schools

Nottinghamshire student accommodation sprinkler saves

Background

Student accommodation is undoubtedly a challenging environment from a fire safety perspective predominately due to the occupancy. University life brings independence, social opportunities as well as the academic challenge. It is also associated with a lifestyle with a reduced level of caution when it comes to appreciating risk or identifying the importance of fire safety. This combined with the distractions of student life, significantly increase the risk of fires in the kitchen area.

The increased risk from fire for this occupancy was demonstrated following the high-profile tall building student accommodation fire in Bolton involving the premises known as the 'Cube' in 2019. The incident report completed by Greater Manchester Fire and Rescue Service referenced the fire spread rapidly and posed a real risk to residents' safety. Two residents were trapped in their flats by fire, heat and smoke, one was pulled from a sixth-floor window by a firefighter on a high reach aerial platform while the second was assisted by firefighters to escape from a second-floor window using ladders.

It is reported that some students didn't start evacuating in response to the premises fire alarm sounding because they had grown accustomed to regular false alarms going off almost daily. Thankfully on this occasion there were no fatalities but highlighted the current failings of the building regulations as fire sprinklers are not a mandatory requirement in all buildings where people sleep such as student accommodation which you may find surprising.

Despite the new fire safety rules reducing the threshold height of sprinklers for new build residential purpose block of flats from 30m to flats to 11m, you must ask yourself why this does not apply to student accommodation or other building types providing sleeping accommodation. Will it take another Cube fire or another Grenfell fire for the government to act?.

Following a freedom of information request for IRS data relating to primary fires in England for the financial years 2018/19 to 2023/24. Only 21 incidents were captured where AWSS were present having an impact, reflecting current government guidance that AWSS are not required in student accommodation in England.

Fire start location, twelve incidents involving the Kitchen followed by bedroom/ bedsitting with six, others accounting for the remaining three.

It is no surprise that kitchen fires accounted for the highest number of fires following the findings identified by LFB for cooking related fires for this occupancy who reported that over the past five years London firefighters have attended more than 1,200 cooking-related fires and false alarms in university students' halls involving kitchen activities, People living in rented or shared accommodation are seven times more likely to have a fire involving unattended cooking.

The benefits of installing sprinklers for this type of occupancy was reinforced following three fires reported by Nottinghamshire Fire & Rescue Service (NFRS) within the space of 12 months which were either cooking related or involved incense candles. On each occasion the fire was contained, controlled or extinguished by the sprinkler system, demonstrating the benefits of sprinklers.

Reinforcing why BAFSA are calling for all buildings where people sleep such as student accommodation to be protected from fire by the installation of a sprinkler system as part of a package of fire safety measures.

The incidents

Credit: Nationwide fire sprinklers

September 2024 – cluster flat bedroom fire

Group Manager Jonathan Holford Head of Fire Protection

"Nottinghamshire Fire & Rescue Service (NFRS) supported the 2020 changes to Approved Document B requiring sprinklers to be installed in all residential buildings over 11m. The benefits of these changes were seen at a recent incident in a medium rise residential building in Nottingham. A small accidental fire was contained to the room of origin allowing our crew to extinguish the fire with minimal equipment. This reduced the hazard to our Firefighters whilst also creating a significantly safer environment for occupants to evacuate promptly. NFRS also welcome the publicised changes to ADB coming into force on 2nd March 2025 requiring sprinklers to be installed in all new care homes."

Fire crews were mobilised to reports of a confirmed fire within a six-storey purpose-built student accommodation block. Upon arrival the IC ascertained that one concealed sprinkler head within a cluster flat bedroom had actuated containing/controlling the fire to the room of origin. This allowed tenable conditions for the resident to make their way to a final place of safety. They were unaware of the fire until the bedroom door was opened by the resident exposing the seat of the fire.

Minimal firefighting was required by NFRS to extinguish the fire with only superficial flame, heat, and smoke damage sustained within the room of origin. It was determined that the cause of the fire was due to embers from a stubbed out lit incense candle which were blown on to clothes within a washing basket which subsequently caught light.

As part of the building process sprinklers were required to be installed to comply with Approved Document B requiring sprinklers to be installed in all residential buildings over 11m in height. However, during the build the decision was made by the developer to change the use, occupancy of the building to purpose group 2b, halls of residence which benefitted from the previous decision for the installation of a residential sprinkler system to comply with building regulations.

If this had not been case the outcome of this incident could have been so different, if the building had originally been proposed as student accommodation sprinklers may not have been included as part of the design build for the building.

October 2024 – Electrical cooking extractor hood fire

Fire crews were mobilised to a fire involving an electrical cooking extractor hood within a communal kitchen. On arrival the IC established that the fire had been extinguished by the activation of one sprinkler head within the room of origin. Superficial fire, heat and smoke damage was reported within the compartment of origin.

February 2025 – Kitchen air fryer fire

Group Manager Chris Emmott who attended this incident, said: “Sprinklers are one of the most effective methods of fire protection, offering automatic activation to suppress fires before they spread.

“We are thankful that this building had a working sprinkler system in place. This could have been a much worse situation, but thanks to the prompt response from the sprinklers, we were able to extinguish the fire quickly and keep everyone safe.”

Credit: Nationwide fire sprinklers

An electric air fryer caught light in a communal kitchen within a tall building. On arrival the IC established that the premises residential sprinkler system had activated impacting the growth of the fire, extinguishing the fire to the to the compartment of origin by the activation of two sprinkler heads.

Fire damage was confined to the electric air fryer, kitchen worktop, cupboards, The occupants self-evacuated with one casualty treated on the scene for smoke inhalation. It is reported that following the building control process and, consultation with NFRS, that sprinklers would be included as part of the design build as the premises was of timber framed construction.

Credit: Dorset & Wiltshire FRS

When comparing this incident to a similar air fryer kitchen fire in Weymouth in December 2024 where the premises was not sprinkler protected, the difference is startling. The kitchen was severely damaged by the fire.

These incidents, demonstrate the benefits of installing a life safety sprinkler system within buildings providing sleeping accommodation.

- Rapidly reducing the rate of production of fire, heat and smoke preventing flash over.
- Allowed extra time for the occupants to escape to safety or be rescued.
- Internal fire spread contained, controlled and extinguished within the room of origin, preventing fire spread to the common ways.
- Integrity of the means of escape maintained.
- Reducing the risk to firefighters.
- Prevented a major protracted incident, allowing FRS resources to be released, redeployed to attend other emergency incidents.

Wales primary school sprinkler save

When you read real life tangible examples of where fire sprinklers have actuated containing, controlling or even in some cases extinguishing school fires, you must ask yourself why sprinklers are still not mandatory for newly constructed school buildings in England.

It is a requirement in Scotland and a condition of government funding in Wales, but despite the [3]rising number of school fires

since the lockdowns of 2020/21 there is no requirement in England or Northern Ireland for the installation of sprinklers in schools. A freedom of information request by insurer Zurich[3] in February 2021 found just 8.5% of new schools built in England since 2015 were sprinkler protected.

The NFCC report that in May 2021, the government announced a proposal to make the installation of sprinklers mandatory in new schools over 11m in height, However, given that only a few schools currently meet this threshold, the benefits of this proposal are likely to be limited. When replying to the consultation on these proposals, NFCC was clear that their strongly held belief is that they constitute a lessening of standards from previous guidance.

The original guidance, when first released in 2007, acknowledged the important role of sprinklers and stated that "all new schools should have fire sprinklers installed except in a few low-risk schools." The proposed changes in the guidance are a retrograde step and represent a real lessening of standards in this area.

Now approaching over 4 years since the government first consulted on a revised version of Building Bulletin 100: design for fire safety in schools, we are still waiting for a decision to be announced.

January 2025 – Wales primary school storeroom fire

The benefits of protecting schools with sprinklers were reported by Mid & West Wales Fire & Rescue Service following a malicious act resulting in a fire within a storeroom. The fire which was successfully contained, controlled and extinguished within the room of origin by the activation of one sprinkler head with no injuries reported, no further firefighting media was required by the FRS on arrival.

The impact of the fire on the school was minimal due to the positive outcome of installing a sprinkler system which allowed the school to maintain a business-as-usual approach reopening the following day with no impact on the student's education.

When you compare this to the three major school fires which were not sprinkler protected in Derbyshire, which were all severely damaged by fire in May/October 2020, the outcome of the fires was so much different.

These fires have resulted in the agreement of a statement of intent, between Derbyshire Fire and Rescue Service, and Derbyshire County Council for sprinklers to be installed in new-build schools and those undergoing renovation, which should be applauded.

"Sprinklers are an effective fire safety measure that can extinguish a fire or contain it until the arrival of fire crews."

Gavin Tomlinson, Derbyshire's chief fire officer at the time of the fires - who has been campaigning for a change in legislation concerning sprinklers - said school fires "rip into the heart of a community".

"This year I have witnessed three separate schools destroyed by fire despite the best efforts of my firefighters," he said.

"Sprinklers are an effective fire safety measure that can extinguish a fire or contain it until the arrival of fire crews."

This incident clearly demonstrates the importance of protecting educational premises with sprinklers. With the benefits they bring, protecting the.

- School, in terms of life safety/property.
- Environment reducing CO_2 emissions.
- Students course work, teachers teaching aids, resources
- local community resource.

For change, we need the evidence to support the fire sector and, sprinkler industry's campaign, lobbying government for more buildings in the built environment to have sprinklers. Notable success has been achieved in England following recent government consultations.

- Reducing the height threshold of sprinklers in new residential block of flats to 11m
- All new purpose-built care homes irrespective of height to be fitted with sprinklers

But we still have a journey to influence policy makers to emulate the policies in the devolved governments in other UK jurisdictions.

- Scotland, sprinklers are required to be installed in new-build care homes, blocks of flats, social housing and schools.
- Wales has required sprinklers in all new single dwellings, care homes, student halls of residence, schools, boarding houses, and certain hostels.

Full reviews of all the above-mentioned sprinkler saves and many more can be found by visiting www.sprinklersaves.co.uk.

Analysis of the data captured and submitted from 72 reported fires where AWSS were reported as having an impact for 2024/2025

The submitted sprinkler saves are collated from fire data, supplementary documentation provided by our FRS and sprinkler industry colleagues across the UK for the financial year ending 2025. Covering a range of fires in a variety of buildings, occupancies where AWSS were present having an impact, providing further evidence on the effectiveness and reliability of AWSS, incidents of a sensitive nature are not included in the figures.

It is interesting to compare this data with the 1764 primary fires captured on the IRS where AWSS were recorded as present, having an impact for the period 2018/2019 - 2023/2024 equating to 294 AWSS activations per year. Obtained following a freedom of information request form the respective teams collating fire incident data for England, Scotland and Wales.

This would indicate that from the 72 sprinkler saves reported for the period 2024/2025 in this review represent around 24% of the fire incidents where AWSS are recorded as present having an impact.

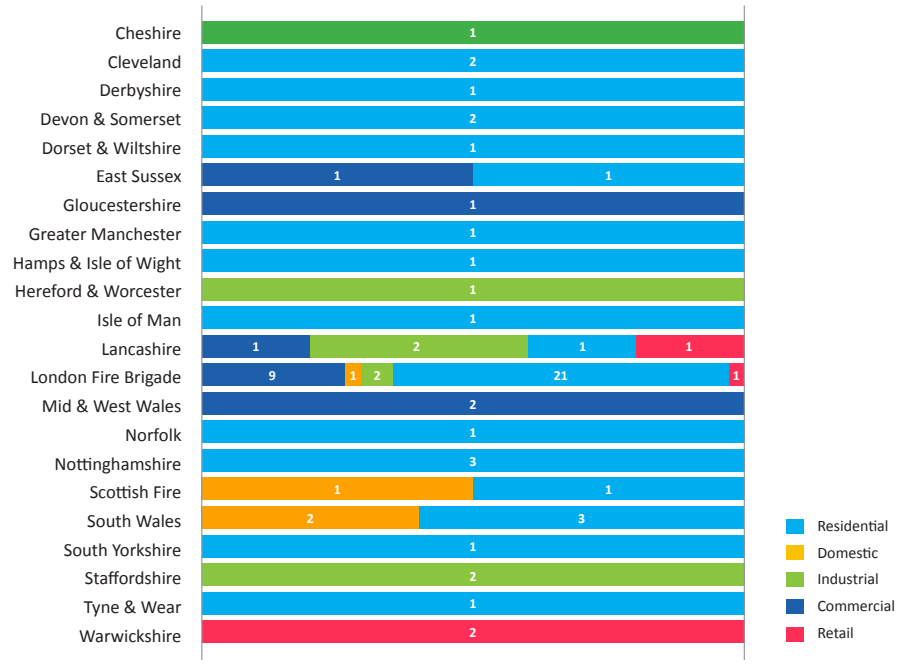


Figure 1: The number of reported fires where AWSS were present, having an impact by building type and Fire and Rescue Service for the period 2024/2025

Types of premises	AWSS present, having an impact
Residential	42
Commercial	14
Industrial	8
Domestic	4
Retail	4
Grand Total	**72**

Table 1: The number of reported fires where AWSS were reported to sprinkler saves where AWSS were present, having an impact, 2024/2025

On average.

- 6.0 incidents reported per month.
- 1.3 incidents reported per week.

The figures in table 1 report the number of fires reported to sprinkler saves where AWSS were present having an impact remained consistent with 72 activations compared with 70 activations collated for the previous year 2023/2024, activations within Greater London accounted for 34 alone.

Residential premises dominated the figures in which sprinklers were reported as present having an impact with 42 of which Purpose-built flats accounted for 27. Again, it is interesting to compare these figures to IRS data across Great Britain for the period 2023/2024 for incidents where AWSS is reported. The leading type of occupancy for dwellings once again is for purpose-built blocks of flats with 121 activations.

- What the data is unable to confirm is why 9 incidents were recorded as unknown, further investigation of the IRS data would be required.
- The accuracy of the data cannot be confirmed until the release of the official government primary fire data of fires attended by FRS for the period April 2024 to March 2025.

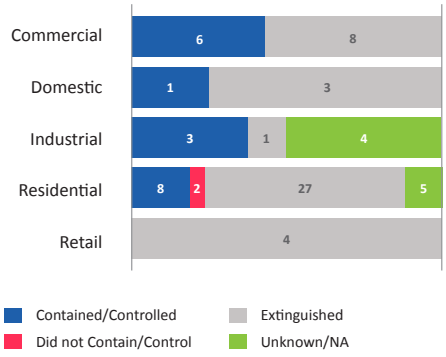


Figure 2: The effectiveness of the sprinkler system containing, controlling, or extinguishing the fire reported from 72 activations for the period 2023/2024.

- The findings reinforce the findings of the previous Sprinkler Saves Annual Reviews, Optimal Economics reports that fire sprinklers have a good track record in reducing the impact of fire.

IRS Primary fire data where AWSS were reported as having an impact for the financial year 2023/2024

The Sprinkler Saves Annual Review 2023/2024 reported 70 Sprinkler actuations provided by our Fire and Rescue Service and sprinkler industry colleagues across the UK allowing us to analyse, interrogate two key areas:

- Number of fires reported with sprinkler activating by building type, fire rescue service.
- Effectiveness/impact of the sprinkler systems containing/controlling or even in some cases extinguishing the fire.

Data was obtained using freedom of information requests to the respective teams collating primary fire incident data for England, Scotland, and Wales for the financial year 2023/2024 where sprinklers were present, having an impact. This allows us a means of comparing incidents reported to Sprinkler Save UK and those officially captured in national statistics.

In total 430 primary building fires were recorded where AWSS were present, having an impact, 146 fires were within dwellings with other buildings accounting for 284.

Figures are not available to confirm the number of AWSS installations completed, or currently being undertaken across the country. However, data on fire incidents allows us to capture where AWSS are present, having an impact. This provides a means to look at the trend of AWSS incidents and by extension capture an indication of the presence of AWSS installations in the building population.

Primary fires are split into sub-categories for the purpose of this section of the review, we will be focusing on fires involving:

Dwellings:

- Bungalow-single occupancy.
- Converted Flat/Maisonette-single, multiple occupancy.
- House-single occupancy.
- Other dwelling, other.
- Purpose built low rise 1-3 storeys, medium high rise (4-9 storeys) high rise (10+) flats/ maisonettes

Other Buildings:

- Agricultural premise.
- Car Parks.
- Communal living.
- Educational premises.
- Entertainment, culture, and sport.
- Food and Drink premises.
- Hospitals and medical care.
- Hotel, boarding houses, hostels, HMO, sheltered accommodation.
- Industrial premises.
- Offices and call centres.
- Private non-residential buildings.
- Student accommodation
- Other residential home/unspecified

Types of premises	Sprinklers present, activated	Watermist present, activate	Total
Dwellings	132	14	146
Other buildings	139	145	284
Total	**271**	**159**	**430**

Table 2: Primary building fires where AWSS were present, having an impact 2023/2024

Dwellings

West Midlands Fire Rescue Service (WMFRS) continue to lead the figures in figure 3 with 42 dwelling activations, compared to London Fire Brigade (LFB) with 23. This could be contributed to the decision taken by Birmingham City Council to install sprinklers in all their communal bin areas for their residential tall building property portfolio in addition to their commitment to retrofit sprinklers in their 213 high-rise housing stock in 2017.

Interrogating the primary fire data for the fire start location within residential purpose-built block of flats, WMFRS report 31 refuse store sprinkler activations within the West Midlands with Birmingham alone accounting for 23, in comparison 2 refuse store sprinkler activations were recorded by LFB within Greater London for this period.

The primary fire data appears to support the rationale for the high number of dwelling activations reported by WMFRS within purpose-built block of flats, namely refuse, bin areas.

Interrogating the purpose-built block of flats field unsurprisingly purpose-built

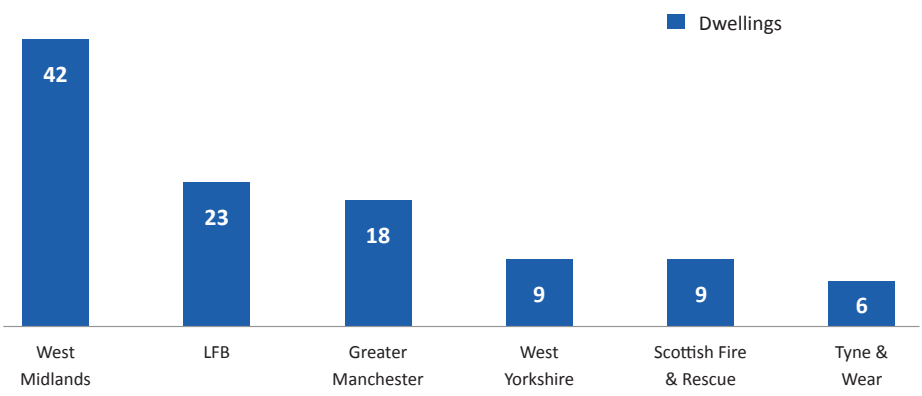


Figure 3: 2023/2024, Reported primary fires with AWSS present having an impact by building type, dwellings and the 6 Fire Rescue Services with the most recorded incidents

Purpose built block of flats	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	Grand Total
1-3 storeys	8	2	1	7	9	12	39
4-9 storeys	7	22	9	27	19	20	104
10 or more storeys	35	68	45	69	83	89	389
Total	**50**	**92**	**55**	**103**	**111**	**121**	**532**

Table 3: Number of reported fires where AWSS were present having an impact for the period 2018/2019-2023-2024 for purpose built residential purpose-built block of flats.

high-rise 10+ dominate the figures with 89 AWSS operations. This should be of no surprise following post the Grenfell Tower fire, regulatory and sector changes relating to fire safety have occurred.

The figures provided in Table 3 support this theory identifying an increase in the number of fires where AWSS, operated over a 6-year period for all purpose-built block of flats regardless of height.

The London borough of Croydon was one of the first councils to retrofit fire sprinklers in their 26 high rise residential blocks over 10 storeys with support and guidance from LFB with the work completed 2018/19. The benefits of this project were clearly identified following two separate fires in the same residential block in the space of two months in 2021 which contained, controlled the fire on both occasions by the sprinkler system.

The number of reported fires where AWSS were present, having an impact in houses/ bungalows for the period 2023-2024 was 12, 8 of which were reported in England. Reflecting the limited statutory guidance within England for the installation of AFSS, Wales accounted for the remaining 4 incidents.

We should expect to see an increase in the number of AFSS activations within Wales since the National Assembly for Wales passed new building regulations in October 2013 that required AFSS to be installed in all new and converted homes

The IRS includes fields which identify the impact following the activation of active firefighting systems in vicinity of fire for the analysis of AWSS fires.

What was the active firefighting system impact; -

i. Extinguished the fire.
ii. Contained/controlled the fire.
iii. Did not contain/control the fire.
iv. Not known.

From the 146 incidents recorded within the building code dwellings for the period 2023/2024 where AWSS were present/ activated, the active firefighting system impact.

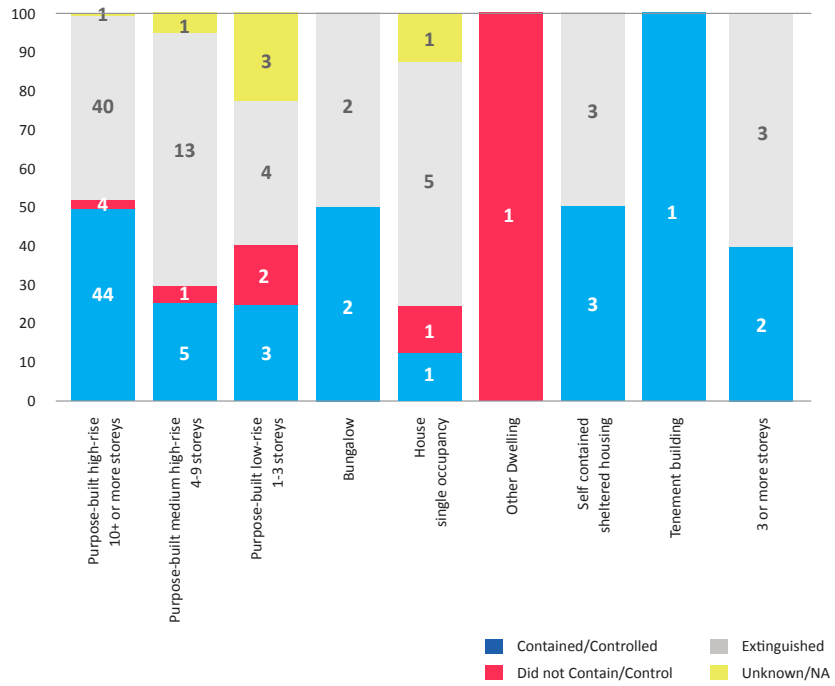


Figure 4: The effectiveness of the sprinklers system in containing the fire across the building type dwelling for the period 2023/2024

i. 61 Contained or controlled the fire
ii. 70 Extinguished the fire
iii. 9 Did not contain/control
iv. 6 Not known

What the data is unable to confirm within figure 4 are the reasons behind why a small majority of AWSS activations did not contain/ control the fire or recorded as not known. Further interrogation of the IRS data fields would be required to explore these points.

Note: Preliminary examination of the incidences where AWSS are reported to have operated and did not contain/control or not known the fire indicated that within:

- Purpose-built high-rise 10+ or more storeys, 5 incidents were recorded as either not known, not applicable, null or the fire in area not covered by system
- Purpose-built medium high rise 4-9 storeys, 2 incidents were recorded as not known, other
- Purpose built low rise 1-3 storeys, 4 incidents recorded as null,1 incident fire in area not covered by system
- House Single Occupancy, 2 incidents recorded as null or not applicable
- Other Dwelling, 1 incident recorded as not known

Other buildings

Of the 284 incidents where AWSS were reported as present having an impact, LFB accounted for the most incidents with 32 within the Greater London area. This is no surprise as the capital of the United Kingdom, London is also the largest city with a population of just over 9 million. The risk from fire in the capital is diverse, ranging from large industrial premises, complex retail shopping centres, major transport hubs, hotels, hostels. The majority of the 284 incidents within figure 6 were in the key primary fields.

- Other public buildings
- Industrial premises
- Retail premises

In the category of other public buildings, 284 fires were recorded with prisons accounting for 140. Industrial buildings accounted for 75 incidents of which factories accounted for 18 activations, which is surprising as sprinkler systems are not guided by regulations to be installed in factories.

What the data is unable to confirm is the rationale behind why a small majority of AWSS fire incidents were identified as not containing/controlling the fire or recorded as unknown. Further interrogation of the IRS data fields would be required to explore this anomaly.

Note: preliminary examination of the incidences where AWSS are reported to have operated and did not contain/control the fire or recorded as unknown was competed indicated that.

Food and drink premises, two incidents recorded as fire not in area covered by system or not known.

Agriculture premises, one incident recorded as not known

Educational premises, two incidents recorded as null, not applicable

Retail premises, two incidents recorded as not applicable or other

Other public buildings, six incidents recorded as null, other or fire in area not covered by system

Industrial premises, six incidents recorded as null, not applicable or fire not in area covered by system

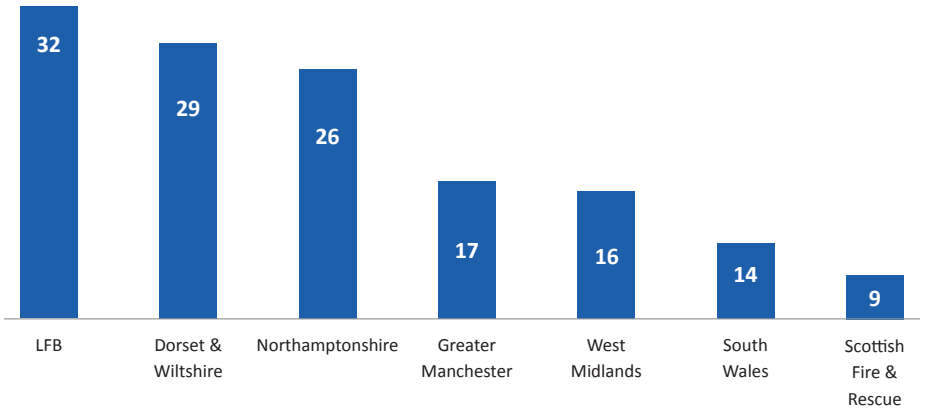


Figure 5: 2023/2024, Reported primary fires with AWSS present having an impact by building type, other buildings and the 7 Fire Rescue Services with the most recorded incidents

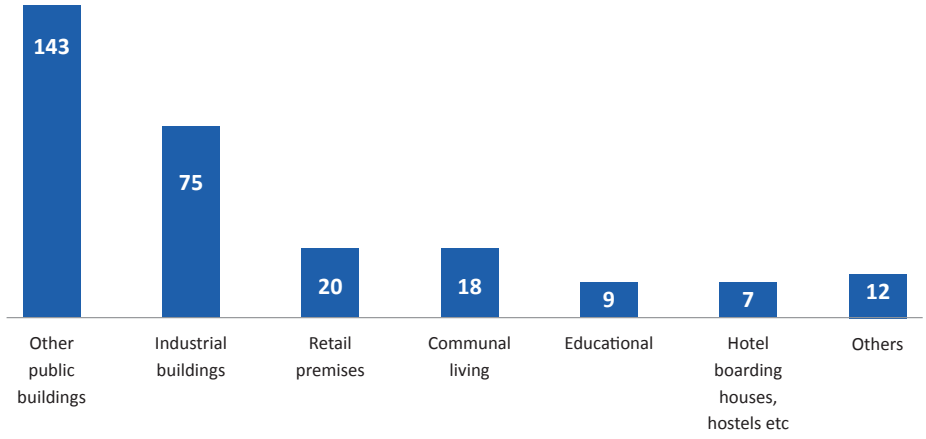


Figure 6: 2023/2024 Number of fires where AWSS were present having an impact by individual building type, other buildings for the period 2023/2024

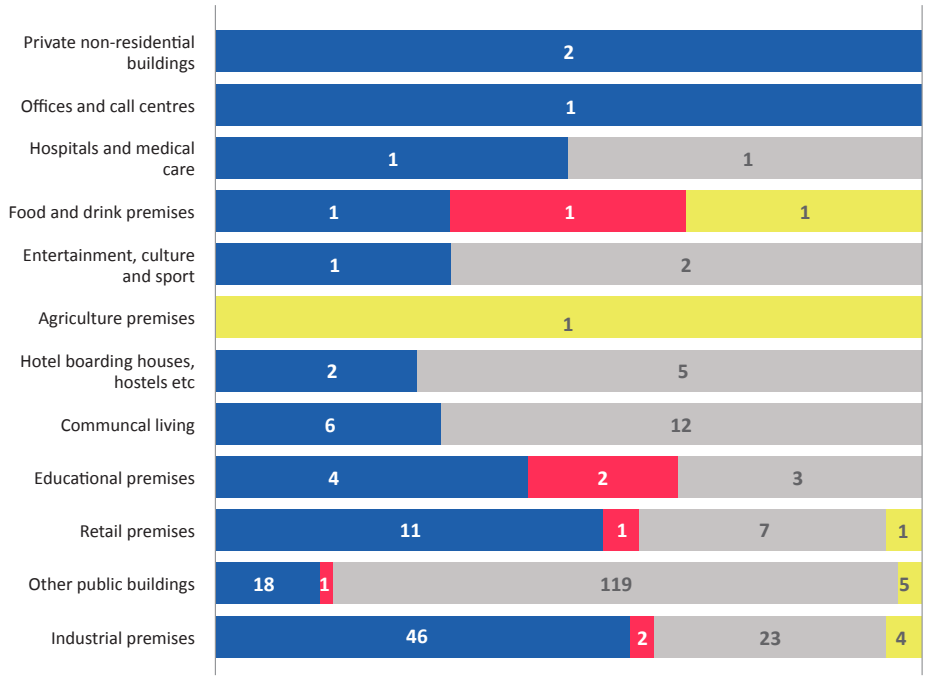


Figure 7: The effectiveness of the sprinklers system in containing the fire across the building type other buildings.

Water mist and sprinkler system – a look at the trends

Figures are not available to confirm the number of AWSS installations completed, or currently being undertaken across the country. However, data on fire incidents allows us to capture where AWSS are reported and if they have activated.

This provides a means to look at the trend of AWSS incidents and by extension capture an indication of presence of AWSS installations in the building population.

Sprinkler Saves encourages the reporting of all forms of AWSS. The information on saves can be a valuable tool in addressing myths, misconceptions regarding their safety and efficiency and providing evidence of the ability of fire suppression to protect our communities from fire.

Freedom of information requests were made for IRS primary fire data relating to fires attended by FRSs in which sprinklers and/watermist systems were present for England, Scotland and Wales for the financial years 2018/2019-2023/24. They identified that there were 1764 incidents, water mist accounted for 381 incidents, representing 22% of reported fire incidents.

Dwellings

The data highlighted that the overall trend for watermist is flat with 49 activations over the six-year period compared to sprinklers with 619. The number of incidents over the six-year period is shown in figure eight.

Looking at the 49 water mist activations, purpose-built flats/maisonettes account for 22, followed by house/bungalow single occupancy with 19, with other types of dwelling's accounting for 8. Looking at the distribution of incidents amongst the FRS areas it is surprising that Derbyshire FRS (DFRS) account for 19 incidents followed by Cambridgeshire FRS with eight and the remaining FRS accounting for 22.

DFRS[4] have been particularly active in the use of Personal Protection Systems which are designed to protect the most vulnerable members of our communities. These are standalone water mist units and DFRS have helped to fit 56 of these personal protection systems into properties across Derbyshire. The limitations of the IRS system are such that it does not record the type of water mist system involved in an incident.

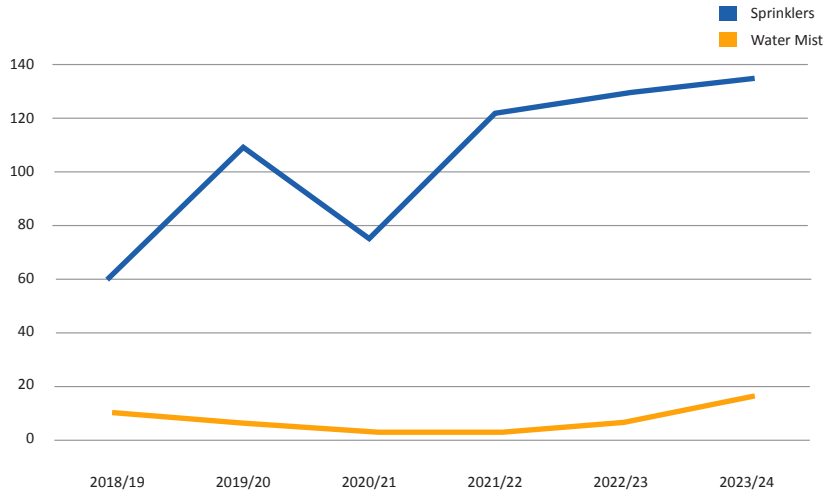


Figure 8: Dwelling fire incidents where AWSS were reported as present, having an impact 2018/19-2023/24 for England, Scotland and Wales.

	Protection type	2018/19	2019/20	2020/21	2021/22	2022/2023	2023/24	Grand Total
Dwellings	Sprinklers	60	108	75	119	125	132	619
	Watermist	11	7	5	5	7	14	49
Other Buildings	Sprinklers	133	121	102	141	128	139	764
	WaterMist	24	45	21	37	60	145	332
	Total	**228**	**281**	**203**	**302**	**320**	**430**	**1764**

Table 4: Incidents where AFSS were reported as present, having an impact 2018/19-2023/24 for England, - Scotland and Wales.

Other buildings

The data highlights that whilst sprinkler incidents remain stable over the six-year period, the presence of watermist shows a dramatic increase for 2023/24. Rising from 60 activations to 145 (up 142%) in one year. Further interrogation of the data reveals this can be attributed to Custodial premises, prison and young offender unit fire incidents.

If the incidents involving AWSS within custodial premises are excluded from the data we see that sprinkler incidents remain stable. Incidents involving water mist are limited with an average of 12 per year as shown in Table 5 below.

Custodial premises and water mist

Fires are not uncommon in custodial premises with the majority located with in prison cells. September 2024, *Inside time* newspaper reports[5] figures from the Ministry Of Justice (MOJ) shows that there were 2,287 cell fires in England and Wales, an increase of 62% on the previous year's figures and the highest annual total since records began in 2016.

In 2009, the Building Research Establishment, published their findings to evaluate the performance and specification of watermist systems for suppressing prison cell fires for custodial establishments, commissioned by the MOJ. The findings concluded that following the practical fire tests, fixed and mobile water systems can both provide an effective means of suppressing cell fires and maintaining tenable conditions for the inmates and prison staff providing rescue.

The MOJ concluded that the benefit provided by fixed watermist systems must be considered against the true risk reduction.

HM Prison and Probation Service, fire safety guide, notes that it is its policy that all cell blocks are equipped with mobile pressurised watermist systems which are to be used by custodians as the primary firefighting equipment for tackling cell fires. This gives a clear indication on the type of watermist systems deployed for prison cell fires.

For the period 2018/2019-2023/2024, custodial premises accounted for 298 incidents where AWSS were present, having an impact. Watermist accounted for 255 activations compared to sprinklers with 43. The broader data shows that the increase in water mist activations follows the noted increase in fire incidents, attended by FRS and recorded for custodial premises for the same period.

What is unclear from the data is whether these water mist incidents reflect the use of mobile units or fixed installations.

	Protection type	2018/19	2019/20	2020/21	2021/22	2022/2023	2023/24	Total
Dwellings	Sprinklers	60	108	75	119	125	132	619
	Watermist	11	7	5	5	7	14	49
Other buildings	Sprinklers	123	116	92	135	123	131	720
	WaterMist	10	15	8	15	12	12	72
	Total	**204**	**246**	**180**	**274**	**267**	**289**	**1460**

Table 5 Incidents excluding Custodial premises where AWSS were reported as present, having an impact 208/19-2023/24 for England, - Scotland and Wales.

	Protection type	2018/19	2019/20	2020/21	2021/22	2022/2023	2023/24	Total
Custodial Premises	Sprinklers	10	4	10	6	5	8	43
	Watermist	14	29	13	21	46	132	255
	Total	**24**	**33**	**23**	**27**	**51**	**140**	**298**

Table 6 Custodial premises where AWSS were reported as present, having an impact 208/19-2023/24 for England Scotland and Wales.

"For the period 2018/2019-2023/2024, custodial premises accounted for 298 incidents where AWSS were present had an impact"

The importance of reporting AWSS activations to Sprinkler Saves UK

BAFSA has long advocated the use of sprinklers as part of a core commitment to reducing the impact of fire on people, property and the environment by encouraging the wider acceptance and installation of AWSS across the built environment of the United Kingdom.

BAFSA sees this by driving a culture change so that AWSS are understood and accepted as the norm and not the exception in the UK. The promotion of reported AWSS activations is dependent on the goodwill and resources of both the Fire Rescue Service and sprinkler industry.

BAFSA actively, promotes and encourages both parties to share details of AWSS activations and is supported by the NFCC, National Fire Sprinkler Network and the Business Sprinkler Alliance.

The appointment of a designated sprinkler saves coordinator has created growth in the reporting of AWSS activations year on year from the inception of Sprinkler Saves UK in 2021 working with our FRS and sprinkler industry colleagues.

The benefit of which has allowed the creation of a central and comprehensive data base of over 200 fire incidents where AWSS have played their essential role in suppressing and/or extinguishing fire.

sprinkler saves uk

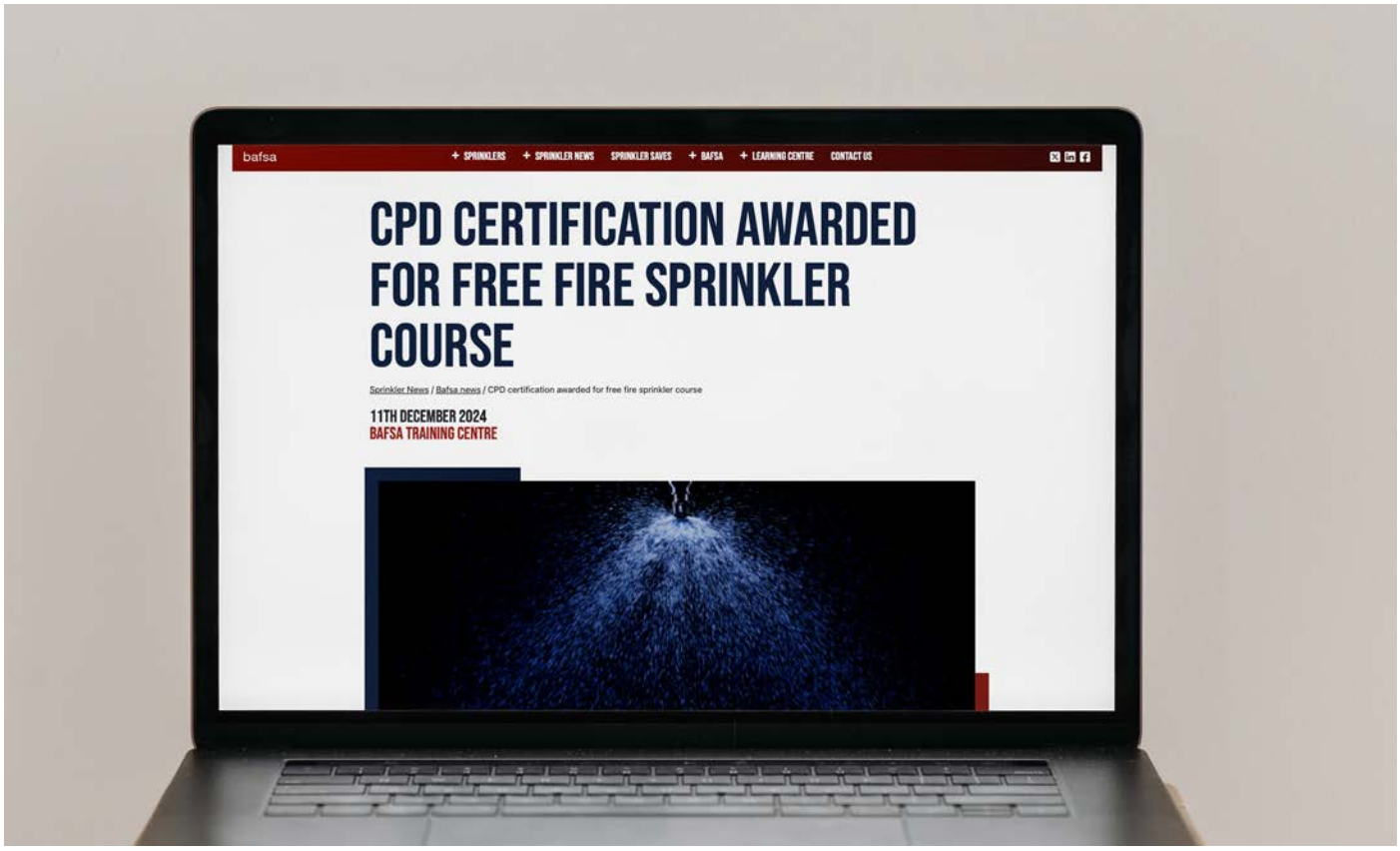
Providing the evidence of sprinklers in action – controlling and containing fires and protecting, people, property and the environment

- Influence policy makers to strengthen AWSS requirements, England's sprinkler fire safety regulations trail behind its neighbours. Governments in other UK jurisdictions have set lower mandatory thresholds for the installation of sprinklers
- Entice housing provider stakeholders and, others to install sprinklers as part of a package of fire safety measures providing a further layer of protection from fire for our communities.

Reporting a sprinkler save will make a difference. If you hear of a save, report it. It truly makes a difference.

To submit a sprinkler, save, use the designated sprinkler activation report form available to download from www.sprinklersaves.co.uk.

All completed sprinkler saves should be forwarded to nick.coleshill@bafsa.org.uk.

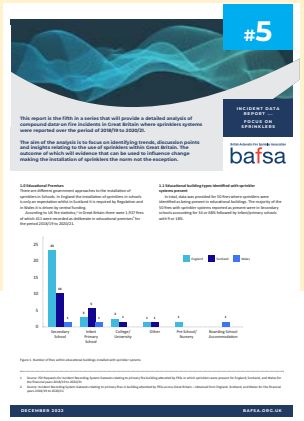


Awareness Of Automated Fire Sprinkler Systems

A free online course has been developed by BAFSA to educate those with an interest in fire safety on the vital role AWSS play in protecting people and property. It includes details of the benefits, types of system and components used and how these are matched to meet the individual requirements of the buildings, contents and people they will protect.

To find out more about how to take the course visit www.bafsa.org.uk or scan the QR code.

Further reading/resources



- Sprinkler Saves UK Annual Review 2021/2022
- Sprinkler Saves UK Annual Review 2022/2023
- Sprinkler Saves UK Annual Review 2023/2024
- Sprinkler Saves UK, newsletters
- Fire Sprinklers Greater London Review 2018/2021
- Incident data report, focus on sprinklers

All the above-mentioned publications are available to download from the sprinkler saves website, resources section.

www.sprinklersaves.co.uk/resources

www.bafsa.org.uk

References, sources

1 Optimal Economics Reports
- Efficiency and Effectiveness of Sprinkler Systems in the United Kingdom: An Analysis from Fire Service Data; May 2017
- Efficiency and Effectiveness of Sprinkler Systems in the United Kingdom An Analysis from Fire Service Data-Incidence of Deaths and Injuries in Sprinklered Buildings: A Supplementary March 2019.

2 Government primary fire data sets fire sprinklers and water mist, 2010/11 to 2022/2023

3 A freedom of information request by insurer Zurich in February 2021 found just 8.5% of new schools built in England since 2015 were sprinkler-protected

4 Surefire reports figures from DFRS confirming PPS fitted in properties across Derbyshire

5 Inside time newspaper reports figures from the MOJ reporting 2,287 cell fires in England and Wales

About British Automatic Fire Sprinkler Association (BAFSA)

BAFSA is the UK's leading professional trade association for the fire sprinkler industry, our primary objectives include providing authoritative information on the benefits of fire sprinkler systems and how fire sprinklers can play a significant role in saving life and property from the devastating effects of fire. To this end, BAFSA works closely with the government, FRS, building control officers, insurers, architects, and town planners.

Sprinkler Saves UK

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