Our spring round-up of news and activities from Sprinkler Saves UK – the only website documenting sprinkler activations and their role in protecting people and property from fire

SPRINKLER SAVES
UPDATE NO 7: SPRING 2025

Thanks for your continued support

BAFSA would like to thank the Fire Rescue Services (FRS) and our colleagues in the sprinkler industry who report sprinkler activations to Sprinkler Saves. Without their cooperation the details of these incidents would go unreported.

We would like to extend a special thank you to Tom Kitchen of Nottinghamshire FRS a sprinkler advocate, who has established an internal best practice protocol to raise awareness of Sprinkler Saves within the service by:

- Promoting sprinkler saves, publications, updates internally to fire protection departments, staff.
- Educating, promoting awareness of incidents where sprinklers were present having an impact, identifying debrief considerations for best practice.
- Informing, encouraging service communications department to promote sprinkler save reviews via social media and internal communications.

The outcome of which will support our efforts to provide evidence for the case of sprinklers, aiming to influence decision-makers to adopt sprinklers as standard practice increasing their use across the built environment on England.

Remember:

99%

Sprinklers are 99% efficient in extinguishing or controlling a fire.

94%

Sprinklers are 94% efficient in their ability to operate.

These statistics are taken from two recent reports conducted by Optimal Economics and commissioned by the National Fire Chiefs Council and NFSN. These reports evaluate the performance, reliability, and effectiveness of sprinkler systems in controlling and extinguishing fires.

Sprinkler Saves 2024/2025 Review

The fourth Sprinkler Saves annual review is due to be published in the summer providing a comprehensive data base of sprinkler saves – providing further evidence, if needed, of the effectiveness of AFSS in containing, controlling or in some cases extinguishing a fire.

BAFSA fully support the call of the National Fire Chiefs Council who would like to see a greater inclusion of AFSS in the built environment in the UK and believe the government should do significantly more.

To drive change and influence policy makers we need the evidence. If you are aware of a sprinkler save which will support this call submit details of the incident, by emailing Nick.coleshill@bafsa.org.uk

Letter to MPs

Our campaign providing authoritative information to local MPs raising awareness of the good work sprinklers do by promoting sprinkler activations is now live. The outcome of which will help us to influence, entice MPs to support our call to lobby government by providing evidence of real-life tangible examples of where sprinklers were present having an impact.

Nick Coleshill, BAFSA Sprinkler Saves Co-ordinator

FREE ONLINE COURSE

Awareness of Automatic Fire Sprinkler Systems (AFSS)

A free online course has been developed by BAFSA to educate those with an interest in fire safety on the vital role AFSS 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.

BAFSA's Awareness of Automated Fire Sprinkler Systems course now has 390 registrations and some 280 CPD certificates have been issued to date.

To find out more about how to take the course click here or scan the code.

Water mist and sprinkler system activations

For the period from 2010/11 to 2022/23, 11% of fire incidents where AFSS are reported by the fire services attending primary fires in England are reported to have water mist present. A Freedom of Information request on primary fires attended by fire and rescue services for England, Scotland & Wales for the financial year 2022/2023 shows that there were 319 incidents involving AFSS. Water mist accounted for 66 of these activations, representing 21% of reported fire incidents.

Looking closely at the types of buildings in which these activations took place, we can see that the majority happened in prisons/young offenders' units or other public buildings (48 activations, or 15% of activation incidents.)

Occupancy	Number of incidents
Educational premises	1
Food and drink premises	2
Hotel, boarding houses, hostels, communal living	2
House, bungalow – single occupancy	4
Industrial building	6
Other public buildings	48
Purpose built flats/maisonettes	3
Grand Total	66

Table 1 incidents where water mist was reported as present having an impact 2022/23 for England, Scotland and Wales

Due to the limitations of the incident recording system, it is not possible to identify the type of water systems that actuated. However, Sprinkler Saves encourages the reporting of all forms of fire suppression system activations including water mist. 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.

Read more about using water mist systems in buildings and structures, a guide to compliant applications in the BAFSA Information file No 3 click here.

SPRINKLER SAVES

Significant Sprinkler Saves this quarter

November 2024 Residential tall building bedroom activation Doncaster

Credit image SYFRS

Following the tragic events of the Grenfell Fire, St. Leger Homes of Doncaster, working with Doncaster Council, took the decision to retrofit residential sprinkler systems into its nine tall building residential blocks as part of a package of fire safety measures to improve fire safety across its housing stock.

This decision clearly had a positive impact following a bedroom flat fire within one of the residential blocks which was extinguished by the activation of one sprinkler head.

Fire survival guidance was provided by South Yorkshire Fire Control who advised the occupants to take refuge on the external balcony as their means of escape was compromised by the fire.

Upon entry to the flat, firefighters wearing breathing apparatus established that the fire had been contained to the room of origin, involving bedding/mattress, by the sprinkler system with only minor superficial fire and heat damage reported. No further firefighting media was required.

Read more about this Sprinkler Save click here.

"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." Roger Brason, South Yorkshire Fire & Rescue (SYFR) sprinkler advocate.

National Fire Sprinkler Network from NFSN Secretary Terry Mc Dermott QFSM

Sprinkler Saves UK demonstrates perfectly the value of sprinklers in buildings. The case studies bring to life the many previous studies into the effectiveness of sprinkler systems with evidence captured at real life incidents where sprinklers have been present.

The case studies show the broad range of buildings and environments where sprinklers have activated and operated as per the system design and prevented fire growth. The National Fire Sprinkler Network is a keen supporter of the BAFSA Sprinkler Saves website and encourages all its UK Fire and Rescue members to continue to support the website by submitting reports to create a one-stop repository demonstrating the effectiveness of sprinklers.

Further information on the role of the NFSN can be found by visiting: www.nfsn.uk

November 2024
Tall building kitchen activation
Manchester

Image credit UK Sprinklers Ltd

An apartment kitchen fire within a tall building tower development was extinguished by the activation of one concealed pendent residential sprinkler head with no further firefighting required from Greater Manchester Fire Rescue Service and no injuries reported.

Read more about this Sprinkler Save **click here**.

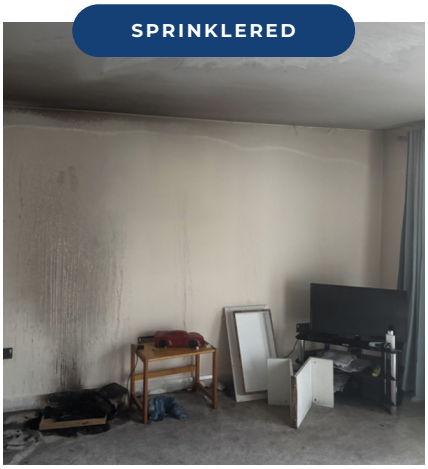
October 2024
Student accommodation kitchen fire
Nottingham

Nottingham Fire & Rescue Service reported a second successful student accommodation sprinkler activation within a three-month period. On both occasions the fire was either contained/controlled by the activation of one sprinkler head with no injuries reported.

Student accommodation is undoubtedly a challenging environment from a fire safety perspective with their own individual challenges. The student's lifestyle is typically associated with a reduced level of caution when it comes to appreciating risk. Demonstrated on this occasion by the student's lack of urgency, understanding of the premises emergency plan (simultaneous evacuation) on the actions that should be taken in the event of the premises fire alarm actuating, resulting in a considerable delay evacuating the building.

The seat of the fire was identified to be within a flat involving an electrical cooking extractor hood which was extinguished by the activation of the sprinkler system in the room of origin before the arrival of operational crews. Superficial fire, heat, and smoke damage was sustained within the room of origin with no injuries reported.

December 2024
Extra Care Housing
Wales



Credit: Mid and West Wales Fire and Rescue Service

Credit image: - Essex County Fire and Rescue Service

Pictures speak a thousand words, the comparison between the two images is startling.

Although BAFSA commends the recent government announcement that sprinklers will be mandatory in all new residential care homes within England, regardless of height, in March 2025. BAFSA also recommends that the Government consider extending this requirement to include all new specialised and supported housing.

If it was not for the decision taken by the National Assembly for Wales in October 2013, mandating fire sprinkler systems in registered group homes and sheltered housing, the outcome of this incident in Wales could have been so different, following a fire involving an electric toaster in a flat.

The fire was contained/controlled by the activation of one concealed sprinkler head, allowing firefighters to decant the resident to safety with only a precautionary check needed. Minor light smoke staining, fire/heat damage was located in the vicinity of the seat of the fire.

Read more about this Sprinkler Save **click here**.

December 2024
Lithium battery house fire multiple occupancy
Gloucestershire

"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." Obi Selassie, Gloucestershire Fire Rescue Service Station Manager.

The growing risk of lithium battery fires involving e-bikes and e-scooters was illustrated following a fire involving a charging e-bike lithium battery in a multi-use building in Gloucestershire.

Due to the activation of one sprinkler head, the fire was contained to the room of origin allowing the resident to self-evacuate the premises before the arrival of the emergency services. 10% fire/heat and smoke damage was sustained to the area in vicinity of the seat of the fire.

A similar incident reported by London Fire Brigade (LFB) resulted in a e-bike battery explosion (**https://www.facebook.com/reel/434269096283961**) 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, and automatic fire sprinklers are 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.

Read more about this Sprinkler Save **click here**.

December 2024 – January 2025
Greater London Reported Sprinkler Activations

London Fire Brigade reported 15 incidents where sprinklers were reported as present, having an impact collated from the Incident Recording System (IRS) covering a range of building typse including Hospitals, purpose-built block of flats, shopping centre and specialised housing.

The impact of the firefighting system

- Extinguished the fire on 8 activations
- Contained/controlled the fire for 1 activation
- [1]Water mist not known for 1 incident

5x incidents reported where the sprinkler system did not operate, due to

i. Insufficient heat to operate the sprinkler system
ii. Sprinkler system was turned off
iii. Sprinkler system was not in the area where the fire occurred

The IRS data captured is dependent on the fire officer who inputs the data and their training, experience of AFSS and commitment to complete reporting. The use of IRS data plays an important role in promoting the benefits of AFSS as part of a combination of fire safety measures to reduce the impact of fire.

Read more about these Sprinkler Save **click here**.

Thank you for your support.
If you have any questions,
please contact me,
Nick Coleshill, BAFSA
sprinkler ambassador at:
nick.coleshill@bafsa.org.uk

No	Month of Incident	Location	Use of building	Location of fire	Firefighting action	Fire Spread	Fire Fighting System Operation	Number of system heads operated	Location of System	Firefighting system impact	FF System Type
1	12.24	Kingston Upon Thames	Other entertain-ment venue	Kitchen	Disconnection of fuel supply	Limited to item 1st ignited	No	0	On same floor as fire	Not known	Sprinklers
2	12.24	Southwark	Recycling plant	Powerhouse/Plant/ Generator	Main branch/Jet (J)	Limited to room of origin	No	0	In room of origin of fire	Not known	Sprinklers
3	12.24	Ealing	Purpose Built Flats/ Maisonettes - 4 to 9 storeys	Kitchen	Burned out (Allowed to burn under control)	Limited to room of origin	Yes, and raised alarm	1	In room of origin of fire	Extinguished	Sprinklers
4	12.24	Camden	Hospital	Storeroom	Other	Limited to room of origin	Yes, and raised alarm	1	In room of origin of fire	Extinguished	Sprinklers
5	12.24	Camden	Hospital	Office	No firefighting	Limited to room of origin	Yes, and raised alarm	1	In room of origin of fire	Extinguished	Sprinklers
6	12.24	Newham	Recycling plant	Canteen/Restaurant	Water, soda acid, gas expulsion etc (water stored pressure)	Limited to room of origin	No	0	On same floor as fire	Not known	Sprinklers
7	12.24	Brent	Self-contained Shel-tered Housing	Bedroom	Burned out (Allowed to burn under control)	Limited to room of origin	Yes, and raised alarm	1	In room of origin of fire	Extinguished	Sprinklers
8	12.24	Havering	Recycling plant	Powerhouse/Plant/ Generator	Hose reel (low pressure) (HR) - tank supply only	Limited to item 1st ignited	Yes, and raised alarm		In room of origin of fire	Not known	Water mist
9	12.24	Tower Hamlets	Purpose Built Flats/ Maisonettes - 10 or more storeys	Living room	No firefighting	Limited to item 1st ignited	Yes, and raised alarm	2	In room of origin of fire	Extinguished	Sprinklers
10	12.24		Shopping Centre	Kitchen	No firefighting	Limited to item 1st ignited	Yes, and raised alarm	2	In room of origin of fire	Extinguished	Sprinklers
11	01.25	City of London	Underground car park	Parking garage	Dry powder (DP)	Limited to item 1st ignited	No	0	In room of origin of fire	Did not con-tain/control	Sprinklers
12	01.25	Hillingdon	Other Residential Home	Bedroom	No firefighting	Limited to item 1st ignited	Yes, and raised alarm	1	In room of origin of fire	Extinguished	Sprinklers
13	01.25	City of London	Pub/wine bar/bar	Reception area	Burned out (Allowed to burn under control)	Limited to item 1st ignited	Yes, and raised alarm	1	In room of origin of fire	Extinguished	Sprinklers
14	01.25	Southwark	Restaurant/cafe	Kitchen	Water, soda acid, gas expulsion etc (water stored pressure)	Limited to room of origin	No	0	On same floor as fire	Not known	Sprinklers
15	01.25	Ealing	Other industrial processing plant	Process/Production room	Burned out (Allowed to burn under control)	Limited to room of origin	Yes, and raised alarm	4	In room of origin of fire	Contained/ Controlled	Sprinklers

Table 1, IRS Primary fire data where sprinklers/water mist were present, having an impact

1 Further investigation of the primary fire data would have to be completed to interrogate the blanks, not known.
2 Due to the limitations of IRS the specific number of water mist nozzles operated are not required to be recorded by the end user
3 LFB Supplementary information confirmed that the City of London car park sprinkler system did not activate due to insufficient heat generated from the fire.
4 the firefighting system impact entry should not have been entered by the end user stating the firefighting system did not contain/control

British Automatic Fire Sprinkler Association
bafsa