

sprinkler focus

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MAY 2018

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Hotels p.4



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FOCUS Comment



TUESDAY 8TH MAY marked the 39th Anniversary of the Woolworths fire in Manchester City Centre, where ten people tragically lost their lives and forty-seven were injured together with six firefighters who also sustained injuries. At the time the fire was the worst loss of life in a shop since the Second World War.

Like most disasters and particularly fires, a serious loss of life is usually followed by recriminations and on some occasion’s legislative changes. A contributory factor to the number of deaths that occurred in the Woolworths fire was the production of large amounts of smoke and toxic fumes from the burning polyurethane filled furniture.

A campaign led by Fire Officer Bob Graham of the Greater Manchester Fire Service eventually succeeded in having The Furniture and Furnishings (Safety) Regulations 1988 implemented. These regulations have had a significant impact on the number of fire deaths that were occurring in homes at that time. Currently the Regulations are under review to ensure they remain effective.

We are now almost twelve months on since the disastrous Grenfell Tower fire, there are a number of inquiries taking place and the first report has now been published. BAFSA welcomed the publication of Dame Judith Hackitt’s report as an initial step to improving safety in high-rise residential buildings but, in terms of the sprinkler industry, there is very little mention of sprinklers in the report and certainly nothing which will make an immediate difference to the safety of the residents currently living in high-rise housing.

As an Industry that is at the forefront of Third party Accreditation for its installers and Third Party Accreditation of our products, the inclusion of TPC for contractors is welcome together with recommendations on standards of competence being applied.

This very much fits with the direction BAFSA is going with both skills and qualifications. Ensuring that UKAS Accredited Third Party Certification is in place for all sprinkler installers is very much our goal.

It is clear there will be much debate about this very comprehensive report and it will take a number of years to implement the recommendations if adopted, meanwhile the residents of high rise buildings still require a better degree of protection from fire. We now must wait for the Government to act, we would welcome being involved in this process and look forward to an invitation to do so.



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British Automatic Fire Sprinkler Association

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The Hackitt review

THE INDEPENDENT REVIEW of Building Regulations and Fire Safety led by Dame Judith Hackitt, recommends new regulatory framework for all high-rise buildings over 10 storeys should be set up. Dame Judith goes on to make it clear that the Government must set up an outcome based standards system for Building Standards.

She has not recommended a total ban for all combustible materials used on high-rise buildings, despite the announcement from Government that it will allocate £400m for replacement of cladding on existing hi-rise buildings.

The comments that the Building Standards system is slow to adapt and update in this technologically fast moving industry are well made and reflects the many calls from BAFSA and its Members that the Building Standards system in England needed a complete review many years ago.

We welcome the new role of duty holder for the building together with a stronger voice for the residents of these properties.

The setting up of a body to oversee the safety risk in high-rise buildings is a step forward particularly with the inclusion of the Fire and Rescue Services, however this will take time and changes to legislation together with additional funding for the FRS.

Government response

In a statement to Parliament, the Rt Hon James Brokenshire MP made the following comments :

“Dame Judith is clear that the current system - developed over many years and successive governments – is not fit for purpose.

She is calling for major reform and a change of culture, with the onus more clearly on everyone involved to manage the risks they create at every stage and government doing more to set and enforce high standards.

This government agrees with that assessment and supports the principles behind the report’s recommendations for a new system.

We agree with the call for greater clarity and accountability over who is responsible for building safety during the construction, refurbishment and on-going management of high-rise homes.

The Hackitt review has shown that in too many cases people who should be accountable for fire safety have failed in their duties.

In future, the government will ensure that those responsible for a building must demonstrate they have taken decisive action to reduce building safety risks and will be held to account.

We agree that the system should be overseen by a more effective regulatory framework, including stronger powers to inspect high-rise buildings and sanctions to tackle irresponsible behaviour.

But as Dame Judith acknowledges, we can – and must – start changing the culture and practice right now.

As a first step, we are asking everyone involved to have their say on how we can achieve this by contacting us by the end of July.

Their response will inform a more detailed statement to the House in the autumn on how we intend to implement the new regulatory system.

We are working with industry to clarify Building Regulations fire safety guidance, and I will publish this for consultation in July.

Having listened carefully to concerns, the government will consult on banning the use of combustible materials in cladding systems on high-rise residential buildings.

Thirdly, we will work with the industry to make the wider suite of building regulations guidance more user friendly.”

Only the day before the Review was published, BAFSA’s Chief Executive met with a local authority who are determined to have sprinklers fitted in their high-rise blocks before the neighbouring authority!

This is indeed a changed scenario to that which we had prior to Grenfell.

Over the last eleven months since the tragedy occurred the BAFSA Team have met with and presented to dozens of local authorities and housing providers.

Clearly for BAFSA the education and publicity work for sprinklers continues ...

British Automatic Fire Sprinkler Association

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The go to organisation for answers

IT IS CLEAR FROM THE NUMBER OF ENQUIRIES BEING RECEIVED TOGETHER WITH THE PRESENTATIONS THE BAFSA TEAM ARE DELIVERING ACROSS THE UK, THAT BAFSA IS THE ORGANISATION OF CHOICE FOR DEFINITIVE ADVICE ON AUTOMATIC FIRE SPRINKLERS.

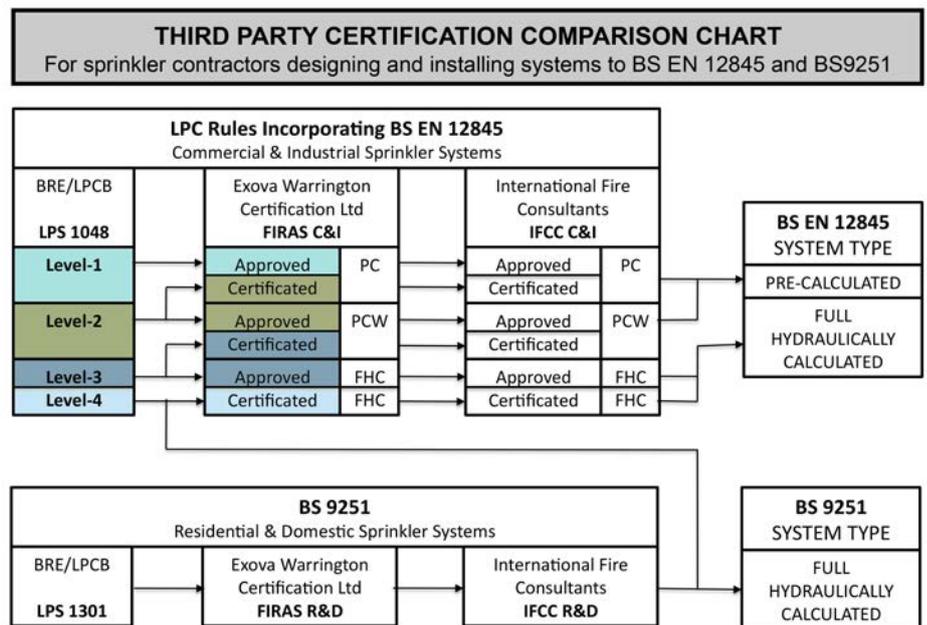
WHILE THERE IS a great deal of interest in automatic fire sprinklers since the Grenfell fire and indeed many councils and housing associations are not waiting for the outcome of the reviews and inquiries and are pushing on with the retro-fitting of sprinkler systems in hi-rise blocks. There is however a reluctance in some sectors to install sprinklers.

The many enquiries BAFSA is receiving from housing providers can be sorted into three bundles, firstly what will it cost? Secondly, will it comply with the appropriate standards and lastly, will the system require a lot of maintenance?

We have been able to advise on the variances of costs for installations: dependent on the construction; numbers of rooms; type of property; water supplies; whether it involves a project manager; and is other work going to be carried out at the same time? Clearly all these items impact on the overall costs and must be considered when making comparisons with other schemes.

We also make it clear that they should know exactly what they want the system to do, what areas they wish covered by sprinklers and what type of occupants they have in the building? All these factors should be considered in a full fire risk assessment of the building before specifying what type of sprinkler system they wish to fit.

We are able to provide advice to enquirers on the standard for the system they wish to have installed, we also advise that they should ensure that any company carrying out the installation must be Third Party Accredited with LPCB, FIRAS or IFC. Most recently it has been pleasing to note that some organisations when going out to tender have insisted that contractors also be paid up Members of BAFSA as well as being Third Party Accredited sprinkler installers.



The question of maintenance is always a concern for any organisation installing sprinklers into their buildings for the first time, they want to be reassured that this will not be a significant annual cost for them over the future years. Again we are able to provide information on the testing and maintenance of systems to them and provide some degree of reassurance to the budget holders. We have also been able to demonstrate the longevity of sprinkler systems, which if maintained properly will ensure their housing stock remains sustainable at least from fire damage.

We will continue to work with our Members together with Third Party Certification bodies and educational establishments to ensure that the sprinkler products are of the highest standard, installed to the correct standard by a competent and skilled workforce that everyone can rely on.

For more information : bafsa.org.uk/wp-content/uploads/bsk-pdf-manager/2017/09/BIF20_web.pdf



FORTHCOMING SEMINARS

SEPTEMBER
19th – Guildhall, Salisbury

OCTOBER
30th – London Fire Brigade HQ, London

NOVEMBER
14th – Marriott Forest of Arden, West Midlands

For more information :
bafsa.org.uk/events-calendar



Sleeping soundly away from home



OVER RECENT YEARS THERE HAS BEEN A GROWING RECOGNITION OF THE VALUE AND EFFECTIVENESS OF AUTOMATIC FIRE SUPPRESSION SYSTEMS (AFSS) IN HOTELS AND SIMILAR OCCUPANCIES. STEWART KIDD EXPLAINS THE USES AND BENEFITS IN SUCH PREMISES.

FIRE SERVICE DATA suggests that there are around 1000 fires each year in hotels in the UK. The Fire Protection Association (FPA) suggest that direct losses from fires in hotels/boarding houses were approaching £4 million which equated to nearly 2.0% of the total cost of all UK fires. While there are few deaths in fires in UK hotels (sadly there were two in the

2017 Loch Lomond Hotel fire), the potential for multiple life loss is ever present.

Many of the larger hotel chains have recognised the life safety and property protection/business continuity benefits of comprehensive sprinkler protection.

Sadly, this realisation only followed a number of major tragedies such as the MGM

Grand Hotel in Las Vegas where in 1980, 85 guests were killed.

How different the outcome of a more recent blaze in the Westin Hotel, Boston when not a single life was lost and all guests were safely evacuated from a 38-storey hotel fitted with an automatic sprinkler system.

Installing sprinklers

In the UK, more and more sprinkler systems are being installed into hotels either during construction or as part of refurbishment programmes. Sprinkler retrofits often follow a change in ownership or management and are led by consumer demand from some large organisations who insist their employees only stay in protected properties. Some organisations will not book unprotected hotels for their conferences and meetings.

The simplicity of sprinkler and watermist systems is one reason for their success: there are no computers or wiring – so no false alarms. The cost of maintenance is extremely low – running to less than £500 per year for the average system. Sprinkler systems have a very long service life, 50 years is common and many systems today were originally installed in the 1920's. This is due to strict adherence to standards for components, design and installation.

Systems in the UK are installed to BS EN 12845, an exacting standard which has evolved over the last 30 years and when installed by a BAFSA member company, the client will be provided with a Certificate of Conformity under the third-party certification scheme LPS 1048. Due to the strict standards imposed on installers by third-party certification, fire insurers will offer usually significant premium discounts and/or lower policy excesses for premises protected by automatic fire sprinklers. It has been suggested that in some occupancies, the value of premium discounts can pay for AFSS over 10 years.

Watermist systems in hotels should be designed and installed to BS 8489 Parts 1 and 7.

Other benefits

It has long been accepted that the presence of a reliable and effective AFSS can be used to trigger design benefits. Typically, these include:

- Longer travel distances to final exits
- Larger fire compartment sizes
- Reductions in fire resistance of some partition walls
- Lower levels of compliance with facilities and access for the fire and rescue service

These benefits or trade-ups are now codified in BS 9999: 2017 which specifically recognises the value of AFSS.

The presence of an AFSS will also make it much easier for a building which

is being converted to hotel use to meet the requirements of building codes and standard. This is particularly true where a historic building is undergoing adaptive reconstruction. The presence of an AFSS will solve many issues including onerous fire escape requirements.

The process

To develop the design for a hotel, the sprinkler specialist will be required to undertake a comprehensive survey of the building, assessing/ designing the various risk area classification and relating these to appropriate sprinkler head selection, head spacing, water flow rate and discharge density. Together with investigating the available mains water supply to establish any need for sprinkler pumps and water storage. Culminating in a comprehensive set of design/ installation drawings indicating pipework routing design, pipework sizing including pump and tank selection and associated electrical/alarm wiring and associated builders work detail.

An important feature of the survey is that the sprinkler specialist liaises with the hotel property manager and other project team members, including the architect to develop the appropriate pipework routing, builders work details and plant/ housing location. Together with programming the works to dovetail with the operation of the hotel and the time allocated for the works.

CPVC pipework

With the introduction of LPCB-approved CPVC plastic pipework, many retrofit hotel sprinkler systems are made easier to install because of the clean and lightweight nature of the product. Often rooms need to be taken out of service for a day or so.

How sprinklers work

It is essential that water supplies, the basis of automatic sprinkler systems, are reliable and guaranteed. This means that water should be supplied from the service main or other dedicated sources of water as specified in BS EN 12845.

An important consideration which should be investigated during the early design process is the space availability for pumps and tanks should they be required.

The sprinkler heads will be strategically positioned in hotel bedrooms, corridors, back of house areas etc. These heads are connected to the water supply via a network of hydraulically balanced supply pipes which are distributed throughout the hotel utilising the most unobtrusive route possible. In certain circumstances pipework can be concealed by decorative features.

Each sprinkler head is its own heat detector and operates at a predetermined temperature normally 68°C. Once this temperature has been reached, the sprinkler head operates and a fine spray of water is discharged on to the fire.

A common myth about automatic sprinklers is that all the heads operate simultaneously; this is completely untrue. Only the sprinkler heads closest to the fire will operate, thus minimising the water damage. The FPA and other independent bodies confirm that 70% of fires are controlled with 4 sprinkler heads or fewer.

Once the sprinkler installation has been activated, the fire is almost immediately brought under control or extinguished. The system can also operate local alarms to aid evacuation and alert the fire brigade to the fact that there is a fire on the premises.

Water damage

It is sometimes suggested that sprinklers can cause more damage than a fire. This is far from the truth. In the case of fires in bedrooms only one or two sprinklers will actually activate. The water discharged by these few sprinklers is 85% less than the water used by the fire brigade.

Every single sprinkler head is pressure tested prior to leaving the factory. US, Australian and UK research suggests that fewer than 1 sprinkler in 5 million will fail by discharging water other than in a fire situation.

The installation of an automatic fire suppression system is a significant contribution not only to the safety of guests and staff but can underpin an integrated business continuity plan. Such protective systems can also provide a flexible approach to hotel design and layout and reduce insurance costs. Retrofitting sprinklers during the conversion of an existing building can be a significant benefit in obtaining the necessary approvals.

Find a BAFSA member : bafsa.org.uk

British Automatic Fire Sprinkler Association

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Sprinklers protect life, property & the environment from fire

**FIRE KILLS
SPRINKLERS KILL FIRES**

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 [@BAFSAFocus](https://twitter.com/BAFSAFocus)

Standards' issues



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THE BAFSA TECHNICAL committee endeavours to address current rules and standards' issues and any other topics that our members wish us to discuss, resolve or give an opinion on. The committee members represent installers, manufacturers, suppliers, insurers, approval/accreditation bodies, sprinkler standards. members.

Participation from installers is invaluable as their 'frontline' expertise can be most helpful in discussing and resolving the various topics we get asked to give an opinion on.

Sprinkler tank inspection and maintenance

BAFSA / FPA are Risc Authority are working together on preparing a schedule for sprinkler tank inspections. The aim is to have this schedule included in the technical bulletin section of the LPC Rules. The committee worked closely with BAFSA members who install, inspect and maintain sprinkler tanks to produce the schedule. A first draft has been submitted to FPA/Risc Authority for their review. The need for this inspection schedule became apparent when the committee was told of the types of issues that are encountered by members carrying out the inspections.

Power supplies

In the 2014 edition of the LPC Rules there was a paragraph in TB 210.8.2.1 (a) 6 read "the supply shall be designed to meet the combined stalled rotor current of all the connected motors in accordance with TB210.8.2.1 (E)."

This requirement was causing problems for installer members in getting the electricity supply source to comply with this requirement, particularly if one of the sources was from an emergency generator.

In the 2015 edition of the LPC Rules paragraph TB 210.8.2.1 (a) 6 was revised to read: "the supply shall be designed to meet the combined current of all connected electrically driven fire sprinkler pumps; one in a stalled rotor condition and any other(s) at full start current in accordance with TB210.8.2.1 (E)."

This new requirement 'seemed' to be less demanding and would allow the electricity supply source to be reduced. But according to a pump supply member the 'starting current' can be greater than the 'stalled' current so the apparent relaxation was not what it seemed.

In an attempt to resolve this issue it is the BAFSA Technical Committee's intention to arrange a meeting between all parties concerned i.e. Pump Manufacturers, FPA, Risc Authority, 3rd party approval organisations, pump trade association/s and any interested parties who have the expertise to contribute.

CPVC installer training

The committee is attempting to get CPVC fitter/installer training recognised by a 3rd party accreditation body. This is progressing very slowly but we are hopeful that it can be resolved soon.

Pipe corrosion

This is a new topic that we just started on at our last meeting in June and will be discussed in more detail at future meetings to agree on a way forward.



"Having fire sprinklers in my home is like having a fireman in the house all the time." - Jude Aged 5

Fire Sprinklers Save Lives

Children are extremely vulnerable when it comes to fire. No matter how many times children are told to not play with matches, candles and electrical items, their inquisitive nature still puts them at risk of starting a fire. Depending on the age, a child may struggle to escape a property safely should a fire occur. As parents we should ensure our children benefit from fire safety measures as reliable as fire sprinklers.

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Echo Arena fire – shocking but not surprising



IAN GOUGH
BAFSA TECHNICAL ADVISER

THE EVIDENCE RELATING to real fires and the apparent lack of investment by developers in improved standards of fire protection in new car parks – especially in the provision of automatic fire sprinkler systems – is perhaps yet another example of this culture failing to act before being told to by regulators writes Ian Gough C.Build E MCABE MIFireE and Technical Adviser to BAFSA.

The fire at the Echo Arena car park in Liverpool on New Year’s Eve came as a shock to many - building experts and members of the public alike.

Fortunately, despite the loss of some 1400 vehicles and insurance claims, currently being estimated to be in excess of £20 million, no one was injured by the fire and so public outrage is, understandably, far more muted

than that expressed nationally post the Grenfell Tower disaster.

Nevertheless, the fire has prompted many motorists to question the safety of large multi-storey car parks and the Mayor of Liverpool, Joe Anderson, has written to Nick Hurd MP, the Minister responsible for Policing and the Fire Service, questioning “whether existing regulations are fit for purpose, given that modern cars contain more flammable parts than they did previously.”

The Minister’s reply will make for interesting reading.

However, many within the fire sector have been fearful that it was only a matter of time before the UK experienced a devastating fire in a car park, as warning signs have increasingly been appearing for anyone to

see. Frustratingly, it seems, those warning signs have gone unheeded.

Warning signs

In recent years a number of very serious fires have occurred in car parks and deaths have occurred.

Indeed, just before Christmas 2017 in South Korea, a fire spread from a car parked in an underground parking area to engulf an eight storey building above; killing 29 people and injuring dozens of others.

Furthermore, closer to home and at the time of writing, we learn of a fire in a car park in France that sadly claimed the life of young firefighter.

On the 10th January 2018, at Choisy-le-Roi, a commune in the south east suburbs of Paris, two hundred residents were evacuated from apartments above a car park due to a fire thought to have been started deliberately. Whilst conducting firefighting operations, Sergeant Jonathan Lassus-David, a 28 year old firefighter and father of two, was injured and subsequently died in hospital four days later.

But the dangers posed to firefighters tackling fires in parked cars is not something new.

In November 2004, a fire started in a car left in a below ground car park which was part of an apartment complex in Gretzenbach, a village about 40 kilometres (25 miles) west of Zurich. During firefighting operations, the ceiling collapsed and seven firefighters lost their lives.

In October 2006, Dutch firefighters wisely chose not to enter a blazing car park in Haarlem when fire erupted on the lower of two underground levels of the Appelaar garage and destroyed at least 26 cars. In view of the smoke and heat, officers chose to simply fill the lower level of the garage with water. Subsequently, this fire led to questions in the Dutch Parliament as, not only did smoke from the garage enter the courthouse and concert theatre above making both unusable, the structure of the car park was so damaged by the heat that fearing collapse additional temporary supports had to be fitted.

Again, in March 2010, below the Ritz Hotel in Paris, a similar fire occurred when over 30 cars were destroyed, two people were taken

to hospital suffering from smoke inhalation and the famous Place Vendome evacuated.

A common factor in each of these examples is that below ground car parks are particularly hazardous – especially to firefighters.

Fires in the open air

Ever since motor cars first started to appear in our towns and cities in large numbers and covered parking areas were provided, ventilation has always been seen as a primary safety factor – mainly because of the risks posed by vehicle exhaust fumes and also the dangers from any spillages of petrol. Increasingly however the dangers of fire spreading from one vehicle to another were thought to be reduced if adequate mechanical or natural ventilation was provided.

However, if we think that a lack of adequate ventilation (and the presence of a ceiling providing a barrier to stop heat from escaping) could be a key to the current problem, we might want to think again considering the serious fires that have occurred in the open air.

- In 2008, 19 cars parked in a field were destroyed in a fire at the Reading Festival
- In August 2010, at Stanstead Airport, a fire in an open air parking lot destroyed 24 vehicles

Worryingly, in each case, a single car fire spread to other vehicles parked nearby creating large conflagrations. Surely, if fire can spread in an open air car park, how much ventilation would you need to prevent fire spread in an enclosed parking space?

New Hazards

Of particular concern is the fact that the average family cars of today, including growing numbers of ‘Sports Utility’ vehicles and ‘people carriers’, have significant percentages of plastics and other combustibles in their construction.

Added to this are worries about the growing demands for ‘alternative fuels’ such as: Liquefied Petroleum Gas (LPG) and Hydrogen. These fuels are not only explosive (as is petrol) but, compared to traditional fuels, there is very little known about how they might perform when involved in a real vehicle fire - especially in an enclosed space such as an underground car park.

In short, modern cars can burn very quickly producing much larger and hotter fires than was previously considered possible. Indeed, until recently, it was assumed to be unlikely that a fire could spread from one parked car to another. However, this can no longer be relied on to be the case as evidence from real fires – especially those in the open air – clearly contradicts this assumption.

Furthermore, whilst UK fire statistics have over the years revealed few reported injuries and deaths as a result of fires in car parks, increasing numbers of injuries appear to be as a result of fires in car parks associated with residential accommodation (flats and apartments); and current figures reveal 6.5 times more injuries (per thousand fires) than fires in purpose-built car parks.

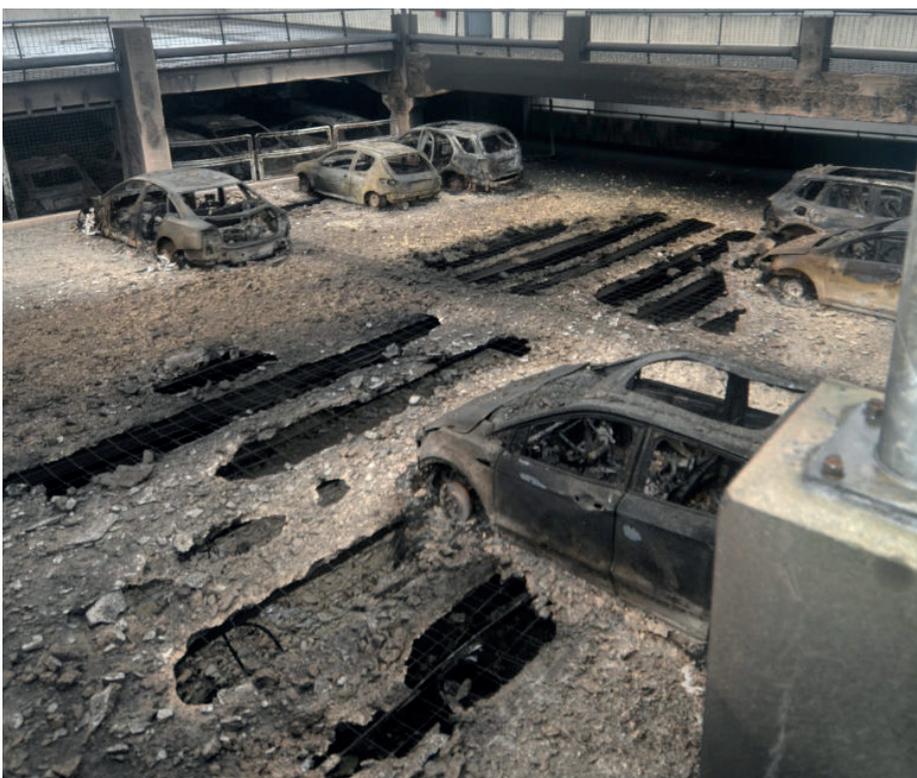
Partially sprinklered

Here in the UK, in December 2006, a fire occurred at a newly constructed Monica Wills House residential care home with underground car parking in Bristol. In accordance with guidance published in support of building regulations (Approved Document B) the ‘residential’ part of the care home was sprinklered – but the car park was not. Fire destroyed 22 cars and spread to upper levels via external windows where one person died as a result of smoke inhalation – 60 residents were evacuated. A residential sprinkler system prevented the spread of fire into the residential area and, no doubt, saved many more lives.

This fire prompted questions to be asked by those responsible for building standards and official government guidance.

Building Regulations

Guidance on the fire precautions considered necessary in the design and construction of car parks can be found in the Approved Document B to the Building Regulations for England and Wales (ADB) and Scottish Technical



Standards. This guidance currently does not require sprinklers to be installed in car parks.* Instead, reliance is placed upon 'passive protection' such as fire walls and doors; and smoke ventilation – either natural or mechanical systems. However, this guidance was written in the knowledge of fire tests carried out in the 1960s and on cars, which are very different from those manufactured today!

This lack of up to date knowledge has led to worries that current UK building standards are no longer entirely appropriate for modern day car park risks – particularly where innovative mechanical parking systems are being installed such as 'car stackers'.

*Note: for buildings located within the inner London area, the requirements of the London Building Act 1939 Section 20 apply, which might require sprinklers in certain car parks e.g. enclosed or basement car parks.

Government Concerns

In 2006, Communities & Local Government (CLG) Sustainable Buildings Division commissioned the Building Research

Establishment (BRE Global) to carry out a 3-year project looking at the problems associated with fires in car parks. The research provides valuable information for designers and other building professionals about the hazards and risks associated with modern motor cars.

Along with a review of current relevant literature, fire statistics, computer modelling and studies of the fire behaviour of materials commonly used in car manufacture, the project team also carried out a number of realistic fire tests including:

- Experimental study – fire spread between cars
- Experimental study – LPG fuelled vehicles
- Car stacker test

This research clearly indicated that the provision of automatic fire sprinklers can confine an outbreak of fire to the vehicle of origin – and thus allow safe entry for firefighters to fully extinguish any remnants of a fire.

Finally, a quite separate experiment was carried out involving a basic car stacking system, without any fixed suppression, in the main Burn Hall at the Building Research

Establishment. This test again revealed the high probability of rapid fire spread leading to full involvement of the fire compartment and commensurate high levels of risks to any attending firefighters.

Sprinklers 99% successful

Fire Sprinkler systems have been protecting lives and property for over one hundred years and, since the development of the motor car, sprinklers have protected many of our city centre car parks successfully with minimum fuss. Indeed, between 1994 and 2005 there were 3095 reported fires in car parks in the UK:

- Of these, only 162 fires occurred where a fixed fire suppression system was present.
- Automatic fire sprinklers extinguished or contained 100 of these fires.
- In only 1% of cases, fire sprinklers operated but did not extinguish or contain the fire and it is therefore to be assumed that the remainder were too small to actuate the sprinklers and either simply burned out or were extinguished quickly by persons using fire extinguishers etc.

Source: UK Fire Statistics



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Those responsible should take note

The response to the 'warning signs' back in 2006 about fires in car parks by HM Government was admirable and the work carried out by the BRE was excellent; their report is still as valid today as it was when published. However, there is little evidence that anything other than scant attention has been paid to this research and this is worrying.

In her 'Independent Review of Building Regulations and Fire Safety', produced as a result of the Grenfell Tower fire, Dame Judith Hackitt is critical of the culture that exists within the construction industry and states:

“THERE IS A WIDESPREAD CULTURE IN RELATION TO BUILDING AND FIRE STANDARDS OF WAITING TO BE TOLD WHAT TO DO BY REGULATORS RATHER THAN TAKING RESPONSIBILITY FOR BUILDING TO CORRECT STANDARDS. THE APPROACH IS VERY MUCH DRIVEN BY AIMING FOR MINIMUM COMPLIANCE, NOT ENSURING SAFETY FOR THE LIFETIME OF THE BUILDING.”

The evidence relating to real fires and the apparent lack of investment by developers in improved standards of fire protection in new car parks – especially in the provision of automatic fire sprinkler systems – is perhaps yet another example of this culture of failing to act before being told to by regulators.

Merseyside's Chief Fire Officer Dan Stephens said after the Arena fire that:

“ONE THING IS FOR CERTAIN - HAD THE BUILDING BEEN SPRINKLERED THERE IS EVERY CHANCE THAT WOULD HAVE SUPPRESSED THE FIRE SUFFICIENTLY THEN FOR US TO BE ABLE TO GO IN AND EXTINGUISH THE FIRE WITHOUT IT SPREADING IN THE WAY THAT IT DID.”

Those responsible for the construction and management of car parks would be wise to take note of the Chief Fire Officer's words. The evidence is clearly available to back up his claims.

For further information:

bafsa.org.uk/wp-content/uploads/bsk-pdf-manager/2018/01/CAR-PARKS.pdf

EN 16295

AFTER MORE THAN four years of drafting work EN 16925, the new European standard for the design, installation and maintenance of residential and domestic sprinkler systems, is expected to be sent by CEN for a ballot at the end of May. The ballot will be of the 34 national standards bodies which form the membership of CEN and will run for eight weeks ending on 26 July. If approved, the standard will be published soon after, replacing BS 9251. Throughout the drafting process the UK has been the largest delegation and has made the greatest contribution to the document. EN 16925 builds on the good experience of BS 9251 and includes detailed guidance to address a number of issues not presently covered, such as for pumps, freeze-protection, system monitoring and alarms.



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Alan Brinson
Chief Executive, European Fire Sprinkler Network

Retail premises represent a hazardous mix

AN OUTBREAK OF FIRE ALWAYS PRESENTS AN ESPECIALLY SERIOUS THREAT TO BOTH LIFE AND PROPERTY AND WHEREVER MEMBERS OF THE PUBLIC CONGREGATE IN LARGE NUMBERS THERE IS ALWAYS GREATER RISK. EXAMPLES OF THIS CAN REGULARLY BE FOUND IN MANY OF OUR HIGH STREET STORES AND OUT OF TOWN SHOPPING CENTRES.

IN TODAY'S ENCLOSED shopping malls, department stores, large supermarkets and shops, vast quantities of combustible goods and packaging may be found. and many of these materials will be of plastic or foam which can produce dangerous quantities of heat and toxic smoke in a fire.

Indeed, the modern trend to "stack-em-high" creates ideal conditions for any unwanted fire to grow and spread rapidly throughout a building. The fact that many retail premises will also have escape routes unfamiliar to the range of people likely to be found shopping there adds to this hazardous mix.

Following a number of serious fires in retail premises, culminating in February 1996 in the tragic death of a female firefighter, Fleur Lombard QGM, many Chief Fire Officers, officials of the Fire Brigade's Union (FBU) and others, voiced their concerns about the hazards posed by large retail premises and

advocated the installation of fire sprinklers.

The simplest way of providing protection for retail occupancies and the people who might be there is by rapid application of water, at the earliest possible stage of a fire, by an automatic fire sprinkler system. Water as a firefighting agent offers many advantages; it is readily available, inexpensive and can be directed to the seat of a fire with immediate effect. Water is also chemically inert and does not present an environmental hazard.

Guidance to the Building Regulations for England and Wales (Approved Document B) has a specific requirement to install sprinklers in single-storey non-compartmented retail outlets with a floor area exceeding 2,000m². (Scotland and Northern Ireland have their own building standards which make similar recommendations).

More recently the Fire Sector Federation has issued guidance to those involved in carrying out alterations and extensions to

retail premises; emphasising the need to assess the risks properly and consider installing sprinklers - even where the floor area might be smaller than the 2,000m² threshold.

Automatic sprinklers are the only fire protection system which will protect property, contents and developers' investments as well as, and more importantly, people. They are also an effective way to protect the environment can be protected from the effects of large fires and damaging interruptions to businesses and local communities.

All fire sprinkler systems detect fires (the sprinkler heads are equivalent to heat detectors in the fire alarm standard BS 5839-1) and those installed in commercial buildings are provided with a local mechanical alarm which will operate even if there is no electrical power available. However, sprinkler systems can easily be provided with a remote signalling facility. This will advise an alarm receiving centre that the sprinkler system is actually operating.

Research conducted by Optimal Economics of Edinburgh for the National Fire Chief's Council and the National Fire Sprinkler Network (NFSN) revealed that in non-residential building the average number of sprinkler heads that operate in real fire situations is less than four heads and that the 'performance effectiveness' and 'operational reliability' was assessed at being 99% and 94% respectively.

This increasing confidence is encouraging the regulatory authorities to recognise the enhanced level of safety provided by sprinklers; as a result, when major projects are at design stage the inclusion of sprinklers will permit alternative approaches to complying with the Building Regulations and can sometimes allow a degree of flexibility in design for both large and small premises alike.



Many fire and rescue services 'call challenging' policies now appreciate the general lack of false calls being made by sprinklers and will respond with an appliance and crew to a known sprinkler activation.

Always select a contractor who is not only capable and competent but who also can offer proof of compliance with an established quality assurance system.

For example, all Installer members of BAFSA (commercial and industrial systems) can provide documentary proof of compliance with international quality assurance standards and also hold an approval (Registration or Certification) from a third party certification service which itself is accredited by a Government –approved body, the United Kingdom Accreditation Service (UKAS).

Where sprinklers are installed for life safety, there is a need to ensure that the systems including water supplies are always reliable and must be maintained. Zoning systems means that segments of a sprinkler installation can be isolated for maintenance while the remainder of the system is kept operational.

Normally 'wet' systems, where the supply pipes are always filled with water, are specified for retail premises and where a fast response is considered necessary. These systems simple to maintain and invariably the most effective. Pipework can be steel or CPVC (chlorinated polyvinyl chloride) which is approved for the purpose. If water pressure and flows are adequate then it is possible that the sprinkler system can be connected (subject to the

approval of the water supplier) directly to the service main. However, where water supplies are insufficient, storage tanks and pumps may be required and these can be sourced from a number of BAFSA members who manufacture listed equipment.

For more information : bafsa.org.uk/wp-content/uploads/bsk-pdf-manager/2017/09/BIF20_web.pdf

System Design and Installation

THERE IS NOTHING mysterious about sprinkler systems and the high reliability and effectiveness of these systems has come about over the years by strict adherence to the sprinkler rules and design standards. It would be wise to always select a contractor who is not only capable and competent but who also can offer proof of compliance with an established quality assurance system.

For example, all Installer members of BAFSA (commercial and industrial systems) can provide documentary proof of compliance with international quality assurance standards and also hold an approval (Registration or Certification) from a third party certification service which itself is accredited by a Government –approved body, the United Kingdom Accreditation Service (UKAS).

Automatic Fire Sprinklers: the facts

- Only sprinkler heads in the immediate vicinity of a fire operate.
- Sprinkler heads can be concealed.
- Sprinkler systems do not need pumps or tanks if mains pressure and flow is adequate.
- Sprinklered buildings prevent firefighter deaths.
- Sprinklers rarely false alarm; they will detect and raise an alarm for real fires.
- Sprinklers installed in full compliance with third party certification standards may attract insurance premium discounts.

FIRE KILLS

On 8th May 1979 fire ripped through the Woolworth store in Manchester with up to 500 persons in the building when the fire broke out.

Eyewitnesses said that the smoke produced by the fire caused breathing difficulties and obscured 'fire exit' signs.

Despite the best efforts of the fire service, 10 persons lost their lives and over 40 casualties were conveyed to hospital for treatment.

The fire was considered to be the worst fire disaster in Manchester since WW2.

This building was not fitted with a sprinkler system.

SPRINKLERS KILL FIRE

Scottish F&RS received a call at 0154 on 27th September 2017 regarding a reported fire at the TK Maxx store in Paisley. Two pumps, an aerial appliance and a salvage unit attended.

On arrival it was noted that there was a secondary fire adjacent to a roller shutter door at the store which in turn had ignited cladding on the two-storey, 2150m² terraced building.

The fire penetrated to the first floor internal area where 2 heads on the OH3, mains fed sprinkler installation activated within the first floor ceiling void. FRS crews used one hose-reel jet and the fire was extinguished in 12 minutes leaving fire damage of between 10 to 15 m².

Business interruption and costs were estimated at 5 hours and £20k respectively.

Activation of the sprinkler system probably prevented further significant property loss.



Did sprinkler legislation stop new housebuilding?



THE DOMESTIC FIRE SAFETY (WALES) REGULATIONS 2013 (THE REGULATIONS) WAS THE FIRST PIECE OF LEGISLATION IN THE WORLD TO MANDATE THE FITTING OF AUTOMATIC WATER SUPPRESSION SYSTEMS INTO NEW AND CONVERTED DWELLINGS ON A NATIONWIDE BASIS. SO, DID THE LEGISLATION STOP NEW HOUSE BUILDING IN WALES? THE EVIDENCE IS THAT IT DIDN'T WRITES RITCHIE O'CONNELL MBA MSC FIFE, BAFSA'S REPRESENTATIVE IN WALES.

THE LEGISLATION WAS introduced despite some strong opposition. including prophesies of house builders 'pulling out of Wales' and despite cost benefit analyses not being wholly favourable. More than two years since full implementation what has changed regarding the regulations?

The implementation of the regulations was in two parts, in brief the first phase of the implementation took place on 30 April 2014 and required the fitting of AWSS to new build or converted; care homes including children's homes, hospices, student accommodation, boarding houses, and hostels.

Phase two, arguably the more contentious portion of the legislation in some quarters, was introduced on 1 January 2016 and extended the regulations to encompass all new houses and flats including those formed by change of use or by knocking one or more existing residences into a greater or fewer number of residences.

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SPP
PUMPS

So, did the legislation stop new house building in Wales? The evidence is that it didn't! The Welsh Government statistical release, *New House Building in Wales, 2016-17 (Revised)* <https://gov.wales/docs/statistics/2017/170614-new-house-building-2016-2017-revised-en.pdf> shows that during 2016-17, the number of new dwellings started increased by 2 per cent compared to the previous year to 6,871 dwellings. This is the second highest annual number recorded since the start of the recession in 2007 to 2008.

Notably one of the larger housebuilder's in Wales who announced they would not be building north of what they termed a "snowline" above Pontypridd ("snowline" - the point at which nothing grows because of perpetual snow and ice) have on their website 6 new sites north of this imaginary line; perhaps there's been a thaw?

Transitional provisions

The two-stage implementation of the legislation came about in part due to the need to allow the sprinkler industry to 'gear up' to meet the increased demand for domestic sprinklers in Wales, and more so due to the vociferous opposition to the regulations by housebuilders, it was strongly asserted that full implementation of the legislation in 2014 would adversely impact housebuilders-particularly SMEs

In addition, the legislation, as is common with Building Regulations implementations, was introduced with transitional provisions which it was felt would assist in reducing the burden on housebuilders.

The effect of the transitional provisions, in respect of phase two of the implementation, was that where applications were submitted prior to the 1 January 2016 and building work commenced on or before the 1 January 2017 the requirement to provide automatic fire suppression system did not apply.

The law of unintended consequences defined as the "actions of people—and especially of government—always have effects that are unanticipated or unintended" came into play, and the transitional provisions of the legislation, created an uneven playing field which disadvantaged the SMEs significantly.

As predicted by some members of the working group considering the legislation, the planning offices and building control bodies were inundated with applications, and as a result those companies who could afford to 'land bank' prospective sites did so in huge numbers. Whilst the small builders, who could not afford to hold onto multiple sites were forced to fit sprinklers immediately, their larger counterparts could, or so it seemed, start work on multiple sites before 1 January 2017 and then mothball them indefinitely.

This 'loophole' caused a furore in Welsh Government in September 2017 when then cabinet secretary, the late Carl Sargeant informed the equality, local government and communities committee that "There are some big industry builders who hate the thought we're introducing sprinklers anyway and are doing everything they can to circumnavigate the system. I would personally like to close the loophole."

Whilst no accurate figures were available MR Sargeant opined there were "many thousands" of homes affected.

It transpired that the commencement of work had been very loosely interpreted by some and that in some instances removing the vegetation from the site was considered as sufficient to sidestep the legislation. This had been previously addressed by Welsh Government who issued a circular outlining what works were considered as commencement of work for the purposes of the legislation.

Whilst this went some way to addressing the issues it still allows housebuilders to begin work on one dwelling unit on a large multi dwelling site and then mothball the site effectively circumventing the legislation.



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Amendments to the legislation

The law is constantly evolving, and the regulations are no exception, they continue to develop as a result of clarifications and appeals/challenges. Two such changes are a determination regarding holiday lets. and the clarification of the requirements regarding hostels.

Whilst suppression systems are required in new build and concerted dwellings, there was a perceived 'grey area' regarding those properties constructed as or converted into holiday lets. The definition of residence used in the drafting of the regulations includes a reference to buildings containing rooms "intended to be used for living and sleeping by a person or persons other than as part of a single household which occupies the whole of that building".

As a result, hotels are not 'caught' by the regulations as they are places where people stay for leisure and business purposes, whilst they are away from their main place of residence (which is where they live), so they cannot be said to "live" in a hotel. As the purpose of a short term let was considered by some as being similar in intended use to a hotel, it was argued that the regulations would not extend to purpose built holiday lets.

Whilst the exclusion of hotels from the regulations is understandable, the possibility of holiday lets being excluded from the regulations caused some concern amongst regulators. The reason for this concern is that many holiday lets are built or concerted as single-family units, which in every way could be identical to a purpose-built residence. If building regulations approval was given for a holiday let which later came to be occupied as a family home the requirement to fit sprinklers may be missed. This was addressed in April 2017 when the Cabinet Secretary for Environment and Rural Affairs determined that under 37A (Provision of automatic fire suppression systems) of the Building Regulations 2010 (as amended), an automatic fire suppression system would be required in the conversion of a coach house into a holiday let.

A further, related, clarification of the regulations took place in January this year when regulation 37a of the Building Regulations which gives force to the sprinkler regulations was amended to extend the requirements to include hostels, other than hostels which provide temporary accommodation to those who are ordinarily resident elsewhere. This amendment makes explicit that backpacker type hostels are not, in the same manner as hotels, considered

"FOR WHERE SHALL A MAN BE SAFE, IF IT BE NOT IN HIS HOUSE?"

as residences and are excluded from the regulations.

The sprinkler regulations will remain largely unchanged but the amended building regulations will, in all likelihood, continue to evolve as clarifications and determinations are sought regarding the application of the legislation. In some quarters the legislation remains contentious, there can be no real doubt however that the introduction of this legislation will make people safer in their homes in Wales and it is to be hoped that this will be extended to the rest of the U.K. in due course.

Whilst we often hear, in argument against the imposition of laws affecting the home, or in rejection of the 'nanny state' (the usually misquoted), "For a man's house is his castle." I for one would like to see the application of the Domestic Fire Safety Regulations across the whole of the U.K. as Sir Edward Croke, when making the above quote, went on to say, "for where shall a man be safe, if it be not in his house?"

For more information: <https://bit.ly/2IH9P12>



Fire kills ...

automatic fire sprinklers kill fires



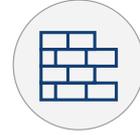
Fire sprinklers will protect your home around the clock, automatically



Fire sprinklers are linked throughout your home by a network of piping, usually strong plastic pipe



The pipes are often connected to the water main but the water supply may come from a tank



Just like other water pipes, sprinkler piping is hidden behind walls and ceilings



In cellars and basements, you may see the piping in the ceiling and it may be copper or plastic



The ends of the pipes are joined to sprinkler heads which are set in the wall or ceiling



Some sprinkler heads are covered by flat plates and cannot be seen



Each sprinkler has a heat sensitive element

Each sprinkler protects an area below and is activated by the heat of a fire

Only the sprinkler closest to the fire will activate, spraying water directly on the fire

One sprinkler will keep you safe from fire in your bedroom

In a larger room there may be more sprinklers to control a fire



Fire sprinklers ...

ask for them - live with them

 SPRINKLERS IN SCOTLAND



DANNY DOHERTY

BAFSA REPRESENTATIVE IN SCOTLAND
DANNY.DOHERTY@BAFSA.ORG.UK

Bernadette Hartley Memorial award

We are delighted to announce that the Bernadette Hartley Memorial award has been awarded to Angus Council's Strategic Director for Communities Mr Alan McKeown. This prestigious award within the Fire Industry is presented to an individual or organisation that has made a significant contribution to the cause for sprinklers. Appointed in 2013 Alan's brief covers the Council's infrastructure and customer facing services, including planning, housing, roads, estates, waste and overseeing the City Deal. Alan's background is in housing and social care having previously worked at the Convention of Scottish Local Authorities. During his time at COSLA Alan represented the interests of local government in housing and social care legislation including developing homelessness legislation and banning of smoking in public places.

Alan along with the visionaries in Angus Council appreciated some years ago that sprinklers were not just a way to save lives but to protect the Councils assets. To use Alan's own words 'it is just the right thing to do.' We congratulate Alan and his entire team on their well-deserved recognition.

Review of fire safety frameworks

Whilst this is going on, the Scottish Ministerial Working Group has been working away to review the current building and fire safety frameworks in Scotland. Although we are not fully aware of any decisions made at present we do know that sprinklers are included on the agenda. Hopefully their wider adoption within the built environment will be forthcoming.

Proposed Bill

The 16th April 2018 saw the closing date for responses to MSP David Stewart's Proposed Scottish Housing (Automatic Fire Suppression Systems) (Scotland) Bill. This proposed Bill will require Social Housing in Scotland to be fitted with fire suppression systems. David who is the MSP for Highland and Islands, believes that the necessity for robust fire safety measures in Scotland cannot be understated. He said: "Fire safety is a significant issue in Scotland, and house fires are more prevalent in areas of socio-economic deprivation. The scandal of Grenfell last summer was that protection was not available to those who were most in need. That is why I am making this common sense proposal to ensure all new social housing has a sprinkler system installed. This simple change in law is a practical step that will save lives".

Furthermore he believes 'that in light of the Grenfell tragedy, and the existing discrepancy between pre and post – 2005 high rise dwellings, that there may be a case for retrofitting sprinklers into the existing housing stock.

The proposed Bill has support from MSPs across other parties in the Scottish Parliament and although its proposals will stop short of those measures introduced in Wales it will be a significant step in the right direction if it is introduced.

Proposed Social Housing (Automatic Fire Suppression Systems) (Scotland) Bill

A proposal for a Bill to require Scottish Social Housing to be fitted with Fire Suppression Systems

Consultation by David Stewart, MSP for the Highlands and Islands
January 2018



BAFSA is pleased to support David's initiative and Keith MacGillivray, BAFSA's chief executive said "This proposed Members Bill would make a significant difference to the safety of the Scottish public and firefighters while ensuring that Scotland's housing stock is more sustainable. We would also support the retro-fitting of sprinklers into all Scottish high-rise social housing."

An excellent track record

Angus Council appreciated some years ago that sprinklers were not just a way to save lives but to protect the Councils assets. Their commitment to fire safety is matched by their excellent track record of installing sprinkler systems in all their new Council homes - over 180 so far. This is at a time when virtually no other Local Authority in the United Kingdom was carrying out such work. Due to their collaboration with the Fire Service and other agencies – at every opportunity they

encourage developers to install sprinkler systems within their properties, and they actively promote the message that fitting sprinkler systems can save lives. Angus Council estimates that over the next 5 years they will have some 500 homes fitted with systems. Whilst this equates to an investment of around £2.5M, the value in terms of preventing death, serious injury and protecting valuable assets is many times that. Angus Council believes that this is money well spent.

A fifth BAFSA Preferred Training Provider



RUTH OLIVER

**SKILLS & QUALIFICATIONS ADVISER
QUALIFICATIONS@BAFSA.ORG.UK**

RAISING THE AWARENESS and profile of the Level 2 Certificate in Fire Sprinkler Installation is an activity that BAFSA is continuing to undertake and we are pleased to announce that London South East Colleges will be the fifth Bafsa Preferred Training Provider to offer this national qualification. The qualification is intended to show employers, clients, contractors, insurers and the general public what a person has learned and can do as a result of that achievement. It is possible that in the future the sprinkler sector, current, and future Regulators may require a nationally recognised qualification.

At present the qualification is delivered at The Manchester College, Neath Port Talbot College, Llandrillo College and West College Scotland. The new provision in London has been secured in response to member enquiries and assists BAFSA's aim of UK wide coverage for qualification delivery.

Since the qualification was launched in September 2015 a total of 104 students have enrolled on the qualification. The Courses at The Manchester College and Neath Port Talbot are full and West College Scotland has recently commenced delivery of a pilot course to 7 students at its Paisley Campus. This year has seen enrolments at The Manchester College by non Bafsa members.

Delivery at London South East College is anticipated to commence in September 2018 and will be at the Greenwich Campus, London SE18 7DQ.

A pilot course consisting of six, one week block sessions will be delivered to 12 students over a 9 month period, similar in style to that delivered at The Manchester College. Students will be required to attend and complete all sessions. To achieve the IQ Level 2 Certificate in Fire Sprinkler Installation (QCF) the learner must achieve seven mandatory units:

- communicate effectively in the workplace
- establish effective working relationships
- manage own resources
- Health and Safety



- awareness of regulations in the fire sprinkler industry (This unit develops knowledge and understanding; however some assessment criteria should be assessed in the workplace)
 - fire sprinkler installation and handover
 - understanding the fire sprinkler industry
- There is no pre entry criteria for the qualification other than a student must be employed within the sector.

A College Course Fee of £1200 to include registration and all learning materials is applicable to each student. BAFSA has negotiated a fee reduction for their members reducing the fee to £1050. In addition, this qualification has secured government funding and is national recognition that the Certificate in Fire Sprinkler is a qualification of note. This means that a significant reduction in the course fee can be offered to BAFSA members reducing the fee to £450.

BAFSA has close working relationships with all of its Preferred Training Providers thereby ensuring that delivery is robust and meets the needs of the industry. BAFSA team members deliver Masterclasses in the subject of legislation and regulation and regular employer group meetings are held where good practice can be established.

For further information, including how to enrol for a place at London South East College, please contact qualifications@bafsa.org.uk.

Please note enrolments are on a first come first served basis.



bafsa
LEVEL 2
QCF

SUB-CONTRACTOR ENROLMENT

Hall & Kay Fire Engineering continue to support BAFSA in its drive to ensure a competent installer workforce fit for the 21st Century and is now pleased to see Riley Fire, one of their sub contractors, supporting the Level 2 Certificate in Fire Sprinkler Installation through two recent enrolments at The Manchester College.

Ian Lowden Kerr and Karl Visor of Riley Fire say

'Riley Fire see the qualification as a future investment within the industry, which they are keen to be a part of. They are looking to gain further knowledge and understanding of the industry. With a view that they may be better techniques to adopt to apply on site.'

Ian Charlton, Operations Manager at Hall & Kay Fire Engineering supports BAFSA objectives to develop and nurture fire sprinkler installer competence through qualification. He agrees that with independent testing and assessment through college attendance the competence of the installer workforce may be evidenced.

Ian says

'It is of the utmost importance that any selected contractor employed to undertake the work is fully conversant with the practises of the correct relevant standard and can demonstrate competency within their particular scope of work.'

BAFSA is pleased to see to see continuing support from Hall & Kay Fire Engineering in the long journey into education and development of the sector and acknowledges their contribution to the activities of the Skills & Development Committee.

Housebuilder says “No” ... Homeowner says “Yes!”

WHEN BAFSA’S CHIEF Executive, Keith Macgillivray and his wife decided to buy a new house, having sprinklers installed during construction proved a problem. Keith takes up the story : “In 2017, my wife and I secured the plot and paid a deposit that was more than we paid for our first house in 1981! We then set about choosing “extras,” from the builder’s option list.

Needless to say automatic fire sprinklers were not on the specification sheet!

I informed my builder that I would like a sprinkler system installed in the house during the build stage of construction, this was met by a flat refusal. I then wrote to the builder, who is a large national house builder and explained why I wanted sprinklers in my house and the benefits they would bring. He explained that their houses were built to a very high standard and didn’t require sprinklers for safety!

I also explained that this was a fantastic opportunity for them and that I would be presenting to large numbers of people around the country and showing them that I really do believe in the product that I represent.

“I AM PLEASED TO SAY THAT EVENTUALLY I DID MANAGE TO GET THE SPRINKLERS FITTED, ALTHOUGH NOT WITHOUT DIFFICULTY.”

This was met with a further refusal and they told me it was too much of a risk for them! I asked for clarification of how this was a risk to them, they explained that if I pulled out of the house deal they would be stuck with a house fitted with sprinklers! Trying to explain to the builders that having sprinklers fitted in the house was a USP was very much beyond their understanding.

All this was taking place post-Grenfell, yet the message had not get through to them. I am pleased to say that eventually I did manage to get the sprinklers fitted, although not without difficulty.

The finished item is a beautiful home fitted with very unobtrusive sprinklers. They are so unobtrusive that one of my former Fire Service colleague’s didn’t even notice them when he looked round the house!

It is clear that we still have a lot of persuasion and education to do with the private house builders before sprinklers become the norm rather than the exception in homes.



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Learn More:

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Sprinkler Saves

NOVEMBER



10th : Student accommodation, London

Four fire engines were called to a fire in a communal kitchen on a seventh floor in a student accommodation block in Stratford.

Around 200 people were evacuated before the fire brigade arrived on the scene and the sprinkler system had suppressed the fire.

“Sprinklers are the only fire safety system which detect a fire, suppresses a fire and raises the alarm” LFB spokesman



11 : Shopping centre, London

A fire in a service area on the second floor of Westfield Shopping Centre in Stratford, was controlled and extinguished by the sprinkler system preventing thousands of pounds worth of damage to the building and the businesses inside. Three fire engines and 14 firefighters attended the scene and thousands of people were evacuated with two treated for minor injuries.

“Sprinklers are proven to save lives and property and also allow businesses to get back to normal as soon as possible by minimising disruption” LFB spokesperson



12 : Store car park, Morpeth

A deliberate fire occurred in some rubbish stored in a car park area of a large retail store in Morpeth. Fortunately the area was protected by the store's sprinkler system and this activated to control/ extinguish the fire.

DECEMBER



5 : Underground car park, London

London Fire Brigade were called to a report of fire in a 30m x15m underground service car park at an 11 storey apartment block in Lime Harbour, E14. This is part of Baltimore Wharf, a site of 12 buildings and the Arena tower of 46 floors. The 12 buildings are mixed commercial and residential with some affordable housing. The apartments in this block are fitted with a BS9251 sprinkler system

The fire occurred in a refuse truck that was completing collections in the B2 car park (sub sub basement).

Fortunately the area was covered also by a sprinkler system fed from towns mains and a sprinkler head above the fire activated controlling the fire. The fire was contained within refuse vehicle due to the sprinkler activation.

There was no apparent damage to the underground car-park concrete construction nor apparent smoke damage or water damage from sprinkler activation and minimal business disruption.

JANUARY



28 : House, Sheffield

Firefighters were called to a property in Gleadless Valley Sheffield where they found the front door, window and porch alight, fortunately no one was in the property at the time, but two dogs & two cats were found within. The pets were thankfully unharmed as sprinklers in the living room had activated and prevented the flames from spreading to the rest of the flat.

Minimum firefighting required.

FEBRUARY



19 : Flat, London

Sprinklers suppressed a fire in a 15th floor flat on City Island Way in Poplar after the

occupants left a chip pan unattended on the hob.

When the firefighters arrived they found that the sprinkler system in the kitchen had activated and quickly put the out fire.

Two women and four children left the flat before the Brigade arrived. One infant was treated at the scene by London Ambulance Service crews and was taken to hospital as a precaution.

A further 60 residents in the building self evacuated the block before firefighters arrived.

“never leave a pan alone with the heat on – not even for a few seconds”.

MARCH



1 & 3 : Retail, Coventry

At the beginning of March 2018 there were a series of malicious fires at the Sainsbury's Canley retail store

The first fire took place on Thursday 1st March and involved a rail of clothing. 200+ people were safely evacuated and fire service crews extinguished the fire. One sprinkler head on the stores sprinkler system operated to contain the fire, limiting fire damage to about 5m². The fire was reported extinguished within 10 minutes of the sprinkler operating.

A fire service officer reported “The sprinkler contained the fire to the large clothes rail and stopped further spread to other nearby clothing rails and items. The potential loss if the sprinkler had not intervened would have been greatly multiplied”.

The second fire occurred at about 1000hrs on Saturday 3rd March. A total of 10 firefighters worked with hose reels to put out the blaze which took hold in the clothing department of the store.

Again the sprinkler operated to control the fire. Thankfully there have been no further incidents reported.

Sprinkler Saves



7 : Laundry room, Newcastle

Four fire appliances from Newcastle, Byker and Gateshead Fire Stations attended a fire in the basement laundry room of the 11 storey Sandman Signature Hotel in Newcastle upon Tyne.

On arrival, firefighters discovered a laundry dryer on fire in the basement of the hotel which had automatically activated the buildings sprinkler system. A single sprinkler head had suppressed the fire and prevented further fire and smoke spreading through the building and its contents.

Sandman Signature Hotels specify sprinkler systems in all their properties.

This was the fourth sprinkler activation at a non-domestic premises in Tyne and Wear in the previous 12 months.

“I would encourage all businesses to install sprinklers to protect their business and staff, the general public and firefighters” Mitch Gaglardi, owner, Sandman Signature Hotels

MAY



15 : Nursing home, Brighton

The manager of a Brighton nursing home where an electrical fire broke out yesterday says it’s “not worth thinking about” what could have happened if a sprinkler system hadn’t kicked in within seconds.

Staff at Birch Grove Nursing Home in Stanford Avenue discovered the fire in a resident’s room shortly and called 999, but by the time firefighters from Brighton, Roedean and Hove arrived, the sprinkler system had done its work. The damage was contained so effectively, everyone who had been evacuated was able to return to the building before crews left the scene.

Home manager Claire Ruscoe said: “The alarm sounded and within two minutes the sprinkler system had engaged and put out the fire.

“Sprinklers can significantly reduce fire, heat and smoke damage and the good news is that they have become more accessible and cost effective” Andrew Gausden, East Sussex Fire and Rescue

London Fire Brigade Commissioner Dany Cotton said: “Now is the time to remind Government of life-saving recommendations we have been making for years”

IF ONLY ...



Grand destruction

An eco-home that featured on Grand Designs was after a fire on New Year’s Day. The owners, Simon and Jasmine Dale, spent six years building the property in West Wales’ eco-village Lammas.

Historic loss

An historic workhouse in Carmarthen was destroyed by a fire which ripped through the first floor and roof of the building on 2nd March. The building itself dates back to 1837, having been designed by architect George Morgan, the man behind many religious and public buildings across Wales.



Devastated

The owners of Cumbria’s famous Hartside Café, which sits at the top of Hartside Pass next to the A686 near to Alston, some 1,904ft above sea level have been left devastated after the family-run business was destroyed by fire.

News & Views



Harnessing water system

A NEW PRODUCT range launched by Xylem Water Solutions UK will help facilities managers to harness a building’s water systems in order to increase fire prevention capabilities and occupant safety.

The Lowara GEM series and the Hydroquench 3000MK2 are two examples of Xylem’s modern sprinkler system solutions. Coming as part of an integrated system, both the GEM and Hydroquench can be connected to a break tank or a mains water supply easily and efficiently.

The systems are controlled by a highly-intuitive control panel, which provides automatic self-test cycles on a monthly basis, and volt-free alarm contact and users can also test the pumps manually as and when needed.

“Many facilities managers may be dissuaded from installing sprinkler systems, because they’re often thought to be costly to install and complicated to manage,” says Xylem’s Mark Bradley, “In fact, the opposite is true. The pump, sprinkler heads and controls all come as one item, meaning it’s easy to fit either the GEM or Hydroquench to both new-builds and existing buildings.

XYLEM
<https://bit.ly/2L7VrQU>

Latest innovation for Europe

BAFSA MEMBER VICTAULIC, a leading manufacturer of mechanical pipe-joining systems, announced today the launch of its FireLock® Innovative Groove System (IGS) for DN25/1-inch fire protection piping.

The FireLock® IGS line includes Installation-Ready™ fittings, an Installation-Ready™ Rigid Coupling, branch line outlets and adapters, as well as the VicFlex™ Series AH2-CC Braided Hose and the RG2100 Roll Grooving Tool. These IGS products feature a new, patented IGS groove specification, optimised for DN25/1-inch pipe and for service up to 25 bar/365 psi. By utilising its innovative groove system rather than threading, the IGS solution not only halves the time taken to install, but also makes job sites cleaner and safer.

The RG2100 Roll Grooving Tool is a first-of-its-kind tool that forms a Victaulic IGS groove into either Schedule 10 or Schedule 40 DN25/1-inch pipe (ANSI B36.10). This innovative tool eliminates measuring and adjustment by the operator, as compared to threading, and effortlessly cold forms the IGS groove to specification every time.

VICTAULIC
victaulic.com



Match funding & retrofitting

Derbyshire Fire and Rescue Service have announced recent successes in the match funding and retrofitting of sprinklers to properties within Derbyshire.

VICTORIA HOUSE, CRESSWELL:
 Existing sheltered housing scheme for elderly and vulnerable adults. Sprinkler coverage throughout – 31 single bedroom flats and communal areas. Sprinkler system cost £35k, we match-funded (£7,800 of this was from a previous initial grant).

ASTON COURT, LOWGATES, CHESTERFIELD:
 Existing sheltered housing scheme of 28 units. Occupied by vulnerable tenants who are over 65s and disabled. Sprinkler coverage throughout. Approximate cost of £50k. DFRS match funded £20k.

GLEBE COURT, HIGH STREET & FLAMSTEAD CRESCENT, CHESTERFIELD:
 A collective bid for 11 bungalows in Chesterfield. Bungalows are for elderly and disabled tenants who are classed as having poor mobility. Total cost = £47k, DFRS contributed £20k.

BSA remains undaunted

WE WILL NEED to step up our activity as frustratingly the review by Dame Judith Hackitt does not recommend a shift to the use of sprinklers or indeed a call for a review of technical guidance. The BSA sees this step as ever more important following the tragedy of Grenfell Tower and considering that 2018 has already witnessed the largest car park and warehouse fires we have seen in our country for many years.

We remain undaunted as we still see the opportunity for change. There is a raised awareness of fire and the need to consider its impact. The BSA continues to actively try to influence government, the built environment sectors and supporting our allies to ensure our collective voice is being heard.

In the built environment we have continued to reach out to ensure sprinklers are understood and considered. We recently hosted a panel

event in London attended by over 140 people with the architect, constructor and developer communities to ensure sprinklers were positioned as part of the fire safety debate. The recent large warehouse fire in Daventry has provided us with the opportunity to question regulatory guidance and whether such a fire is a success. It is also has created an opening for a dialogue with the developer community to discuss fire sprinklers as a positive choice.



business-sprinkler-alliance.org

THE LONDON ASSEMBLY has launched a powerful and comprehensive report calling for the mandatory installation sprinklers of all new homes in England.

The Commissioner of the London Fire Brigade, Dany Cotton told the London Assembly that “as a measure as part of a range of options in making buildings safe [sprinklers] are key going forward.”

In the opening statement of this proposal, Navin Shah AM says:

“WE ARE RECOMMENDING THAT THE BUILDING REGULATIONS SHOULD REQUIRE ALL NEW RESIDENTIAL BUILDINGS OVER 18 METRES – 6 STOREYS – HIGH, NEW CARE HOMES AND SHELTERED HOUSING BE FITTED WITH SPRINKLERS IMMEDIATELY. WE ALSO CALL ON THE GOVERNMENT TO REQUIRE SPRINKLERS TO BE RETROFITTED IN EVERY EXISTING TALL BUILDING, CARE HOME AND SHELTERED HOUSING BLOCK DURING REFURBISHMENT WORK.”

View this report here bit.ly/2IJ6G3Y



18th International Water Mist Conference

This event will take place in London, UK, on 19th and 20th September 2018 at the Grange City Hotel near the Tower of London and the programme will be available via the conference webpage from early July onwards. <https://bit.ly/2luHsDb>

PEOPLE, PROPERTY, ASSETS, BUSINESSES, EMPLOYMENT

WAREHOUSE FIRES THREATEN THEM ALL

IT MAKES SENSE TO FIT FIRE SPRINKLERS



www.bafsa.org.uk



The 2018 event for fire protection specialists & building safety professionals

14TH NOVEMBER, MARRIOTT FOREST OF ARDEN

Delegates will have unique access to information & new knowledge and end the day inspired

Day Delegate Rate : £180 Early Bird £160

Presentations

Internationally recognised professionals, experts in their chosen fields will deliver presentations focussing on:

- Standards & Approvals
- Risks & Mitigation
- Skills & Qualifications
- Retrofitting & New-Build
- Legislation & Regulation
- Sprinkler Efficiency & Reliability

Speakers

Dany Cotton, Commissioner, London Fire Brigade
Debbie Smith, BRE Global
Stewart Kidd, Loss Prevention Consultant
Gary Howe, Zurich Insurance
Stuart Galloway, Industry Qualifications
Martin Shipp, President, IFE

We are awaiting confirmation from one of America's leading sprinkler specialists

Exhibition

No other conference in the UK has a sprinkler-focussed exhibition running alongside. Our delegates can expect to visit over 20 stands representing the best the sprinkler industry has to offer in terms of products, systems, equipment and standards

Dinner

The 2018 BAFSA dinner will be held on Tuesday 13th November.

This will be a celebration of the sprinkler industry in 2018 and the perfect occasion to network with BAFSA members and UK fire protection professionals

TICKETS : £75

TO BOOK:
bafsa.org.uk/events/fire-sprinkler-2018-conference/