Two independent studies into the financial and economic impact of warehouse fires in the UK have produced compelling evidence in favour of the installation of fire sprinkler systems.

Both commissioned by the Business Sprinkler Alliance (BSA), the reports were produced following extensive research by the Centre for Economics and Business Research (Cebr) and BRE Global Ltd. Their combined findings were presented to MPs in the House of Commons, prompting a call for the British Government “to promote more actively the installation of sprinklers in industrial and commercial premises, and review current guidance to bring fire safety policy in line with competitor economies.”

Commenting on the findings, a letter to The Telegraph - signed by 23 cross-party MPs, five Peers and 21 councillors - said that every year warehouse fires cause a direct financial loss of £230m to British business.

The letter said: “These losses are wholly avoidable. Fire sprinklers are cost-beneficial to install and they prevent large fires, safeguarding fire crews, workers, businesses, property, the economy and the environment.”

Government action, it concluded, “... would make British businesses more resilient and competitive, and help ensure that avoidable fires do not hinder continuing economic recovery”.

Cebr said the British economy had lost £1 billion in GDP and 5,000 full-time jobs through preventable fires in commercial warehouses over the last five years. It found that:

❖ Fires cause a direct financial loss to business of £230m per year.
❖ A loss of £190m per year in productivity and impacts to the supply chain.
❖ Approximately 1,000 jobs were lost annually through disruption and business failure.
❖ The Treasury lost £160m in tax receipts over five years.
❖ 135,000 tonnes of CO2 were released into the atmosphere annually.

Jim Fitzpatrick MP, Professor Douglas McWilliams, Dr Debbie Smith and Iain Cox presented the research in the House of Commons.
Compelling new evidence for sprinklers in warehouses

- CO₂ emissions and water used in fire-fighting were valued at £11m per year.

Cebr and the BSA are now calling for better education on the substantial benefits that fire sprinklers can deliver to the business community and wider economy. They are also calling for government to review existing building standards to bring policy on fire sprinklers in warehouses in line with competitor economies. Cebr Chairman, Professor Douglas McWilliams, said: “One in five warehouses in England and Wales will have a fire requiring the attendance of fire fighters. These fires are hurting our economy and could endanger our recovery.”

Jim Fitzpatrick MP, Secretary of the All Party Parliamentary Group (APPG) on Fire Safety and Rescue said: “The new findings launched today make a compelling argument for the installation of fire sprinklers in warehouses across UK building stock.

“The current guidance on fire sprinklers in warehouses in the UK only applies to warehouses over 20,000m². Across Europe and competitor economies the regulations apply to much smaller sizes, which mean they are far better prepared and able to recover from fires that threaten their businesses. The UK Government has the power to correct this.”

The main finding from BRE Global’s three-year study is that sprinklers are, on average, a cost-effective investment for warehouses with a floor area above 2,000m², with the greatest benefit arising from the reduction in direct fire losses. Its key findings include:

- Whole life costs for warehouse buildings larger than 2,000m² with fire sprinklers are on average 3.7 times lower than those without.
- Fire sprinklers were, on average, not cost-effective in warehouses with an area below 2,000m².
- Environmental benefits from sprinklers include a reduction in CO₂ emissions from fire, reduced size of fire and reduced quantities of water used to fight fire.
- Only 20% of warehouses between 2,000m² and 10,000m² are fitted with fire sprinklers. For warehouses above 10,000m², the estimated percentage with fire sprinklers is 67%.
- If all warehouses above 2,000m² were fitted with sprinklers, the annual saving to businesses in England could be up to £210m.

Dr Debbie Smith, Director of Fire Science and Building Products at BRE, said: “Despite a year-on-year decrease in the number of commercial fires, the estimated annual cost of these fires is rising along with related societal and environmental impacts. This project has broken new ground in terms of evaluating these broader sustainability impacts of fire in warehouses and demonstrating that, on average, sprinklers can be shown to deliver a net benefit.”

Iain Cox, BSA Chairman and former Chief Fire Officer of Royal Berkshire Fire and Rescue Service, said: “What is clear from the current research is that insurance alone is not enough to fully protect companies from the long-term impacts of fire. We urge the Government to do more to encourage the installation of fire sprinklers in commercial premises and promote a better understanding of the positive impacts of physical resilience.”

US study proves value of warehouse sprinklers

A 14-year study of hundreds of fires in the USA has underlined the importance of fire sprinklers in minimising property damage, especially in industrial occupancies.

The study, by the Property Risk Engineering Group of Liberty Mutual Insurance, looked at 946 serious fires that occurred from 2000 to 2013 across 11 occupancy types, with threshold damage estimates of $100,000 and greater.

Of the fires studied, 322 were industrial fires: 269 in manufacturing occupancies and 53 in warehouse occupancies. While these fires made up just over a third of all the fires, they were responsible for 49% of the total estimated damage, which was $1.2 billion.

The findings supported the notion that the ‘heavier’ the occupancy - such as industrial - the proportionately more damaging fires tend to be. While residential fires accounted for 8% of the number of serious fires, they accounted for just 4% of the total estimated damage of those fires.

Overall, in a comparison of estimated fire damage in non-sprinklered versus sprinklered industrial occupancies, fires in non-sprinklered facilities averaged an estimated $1.9 million in damage compared to $638,000 in sprinklered facilities - a ratio of about 3:1.

The study also explored cases where sprinklers were present but were impeded or impaired. Most of these cases - where the sprinklers failed to control the fire within expected limits - were traced to failures in what the researchers termed the ‘human element’ which begins with proper design and review of sprinkler system placement and hardware, as well as competent evaluation of the water supply to meet the intensity of the fire anticipated by the occupancy.

It says that for best results, system design should anticipate the most challenging conditions, not necessarily the least costly solution. “That said, sprinklers are amazingly resilient and often perform with great effectiveness in spite of design deficiencies. However, they do not compensate well for failures in the post-design human activities intended to keep sprinklers in service.”

One example given of a design/review failure is where sprinklers are omitted in concealed spaces, in enclosed process equipment such as ovens and printers, from beneath mezzanines, or from other enclosures.

The study concludes that when sprinklers are installed, and when they operate as designed, fires almost always remain small, as reflected in the cost of the damage.

“This is a key reason why the value of automatic sprinklers for all occupancies, from residential to heavy industrial, continues to be more widely recognised, not just in the United States but around the world.

“It is our hope that that momentum will continue, aided by the work of NFPA, major insurers, firefighting organisations, and other stakeholders to constantly investigate improvements in hardware and to upgrade sprinkler installation codes and standards.”
BAFSA plans warehouse roadshows

BAFSA is launching a series of one-day seminars to communicate to the UK’s warehousing and logistics communities the findings of the Business Sprinkler Alliance (BSA) studies into the financial and economic impact of warehouse fires in the UK.

The studies showed that sprinklers are, on average, an environmentally beneficial and cost effective investment for warehouses with a floor area above 2,000m². The whole life costs for warehouse buildings larger than 2,000m² with fire sprinklers were found on average to be 3.7 times lower than those without sprinklers, however, in warehouses with an area below 2,000m² sprinklers were not found to be cost effective. The conclusion was that if all warehouses above 2,000m² were fitted with sprinklers, the annual saving to businesses in England could be up to £210m.

Supported by local fire & rescue services, the events are scheduled to start in the South East in the autumn of 2014 in and continue into 2015. It is hoped that venues will be secured in Essex, Milton Keynes, Staffordshire, Swindon and Glasgow.

Each event will host an invited audience of up to 100, with the programme expected to provide a detailed review of the reports; end-user experiences; the insurers’ view; and practicalities for the installer.

Dates will be announced shortly but if you are interested in attending please register your interest and location by email marketing@bafsa.org.uk.

First National Fire Sprinkler Week

The UK’s first National Fire Sprinkler Week under the auspices of the Chief Fire Officers’ Association (CFOA) took place from 3-9 February 2014.

Most activity was conducted at local level, organised by individual fire and rescue services, but the event also included the national launch of two major reports into the cost of fires in warehouses and the cost/benefits of sprinklers in warehouses (See Compelling New Evidence for Sprinklers).

With press and media coverage an important element of the initiative, organisers secured more than 100 articles in regional press across England, Wales and Scotland; a total of 26 national articles, primarily in the trade press; and TV coverage including ITV.com – Merseyside and West Yorkshire, and BBC Warwickshire.

Twitter coverage also played its part, with 270 Tweets between 14 January and 10 February, representing a total potential reach of 2,215,250 followers. During the week itself, there were 226 Tweets, representing a total potential reach of 2,041,496 followers.

Activity at local Fire and Rescue Service (FRS) level was varied, and included:

**Cheshire F&RS** - Cheshire FA Members agreed to earmark £160,000 to work with local housing associations on retrofitting systems into at least one block of flats in each of four local council areas.

**Cornwall F&RS** - Partnership with the planning department of Cornwall Council has been reviewed and will result in guidance for applicants to consider sprinklers as part of the planning process.

**Derbyshire F&RS** - The FRS highlighted the success of its existing ‘Think Sprinkler’ campaign by having domestic sprinklers fitted into Rose Homes.

**Dorset F&RS** - Feedback from a seminar delivered to 30 stakeholders indicated that sprinklers will be included in the design stage of buildings and retrofit.

**Essex F&RS** - Is providing £250,000 funding to help install sprinklers in homes at the highest risk of fire and protect the most vulnerable people in the County. The funding is available to local authorities, housing associations and charities.

**Greater Manchester F&RS** - Held a ground-breaking seminar and produced a video, see: www.manchesterfire.gov.uk/updates/news/7february2014_sprinkler_conference_demo.aspx

**Kent F&RS** – Are involved in retrofitting sprinklers to Carl Ekman House, a building of 14 floors containing 52 flats, built in the mid-1960s. On 6 February 2014, an open house was held in one of the sprinklered flats to demonstrate their appearance and dispel any myths which the residents may have. It was estimated that by mid-April 2014, more than 25% of the flats will have sprinklers installed, and 60-75% by the end of 2014, with completion in 2015.

**Merseyside F&RS** - Produced a video, see: http://www.youtube.com/watch?v=MnUOXgfmoSE&list=UUyUaaYt1x20zkJqRt97xeYQ

This gave a live demonstration of Sprinkler Benefits in action in two units – one sprinklered, one not. Extensive coverage was achieved in local press, with TV coverage on the Granada Reports news programme. A presentation on the cost benefits of sprinklers was also included, and information was provided on the Fire Authority’s decision to provide £200,000 to attract match funding.
BAFSA and the London Fire Brigade (LFB) have signed a new Memorandum of Understanding to formalise a series of agreements regarding collaboration and cooperation in promoting the wider and more effective promotion of the use of automatic fire suppression systems (AFSS).

The Memorandum, which will be followed by a similar agreement between BAFSA and the Scottish Fire Service at Fire Sprinkler International on 20 May, confirms that the two parties have agreed to work together in a number of areas.

These include regular liaison to exchange information on matters of relevance and mutual interest, such as:
- Proposals by public and private bodies to install sprinkler systems, especially in social housing or in large developments.
- Other opportunities to recommend sprinkler systems in properties such as schools, residential care homes, domestic premises housing the most vulnerable, and commercial premises that present a significant risk due to their size, construction or use.
- Fires in buildings which are fitted with AFSS, and especially information about how those systems have performed.
- The sharing of statistics and data relating to the application and use of AFSS.
- Instances where organisations have declined to install sprinklers against fire service advice.

BAFSA and LFB also agreed to cooperate closely in the organisation of seminars and other activities to provide accurate and reliable information relating to the costs, techniques and practical implications for AFSS installations in new and existing premises.

The MoU, which was signed by Rita Dexter, Deputy Commissioner and BAFSA Secretary General Stewart Kidd, allows for a wide range of collaboration and coordination. Deputy Commissioner Dexter said that the agreement would mean that:

“(LFB’s) officers are now better equipped than ever to advise on the business and moral case for installing sprinklers to those who need them most.

BAFSA Chairman Peter Armstrong said:

“This initiative marks a further milestone in BAFSA’s commitment to working collaboratively with any organisation which has an interest in the more efficient and effective use of sprinklers and water mist. We are delighted that the UK’s largest fire brigade has decided to make use of our expertise and are looking to see where else we might deliver our message of the values of fire suppression systems.”

As part of the Memorandum of Understanding, BAFSA have undertaken to provide at no cost to LFB at least one Continuous Professional Development course on AFSS for 20 LFB officers, to help enable them to become ‘sprinkler champions’.

BAFSA will also provide a range of technical and promotional literature and other material to assist LFB in the wider promotion of AFSS, and will provide LFB with information on issues relating to the supply of water for AFSS.

The two organisations will continue to cooperate and support each other in relevant areas and forums, including the National Fire Sprinkler Network, the Business Sprinkler Alliance, relevant British Standards committees and the Sprinkler Coordination Group.

Viking launches new mobile websites

Michigan-based fire protection and life safety systems company Viking Corporation has introduced a new mobile web platform aimed at providing customers with convenient field-access to critical product information.

The six new mobile sites include valuable service and troubleshooting resources including links to repair and maintenance videos, technical data sheets, replacement parts, and frequently asked questions for several Viking products. The result is a single online troubleshooting resource specifically formatted for fast and easy viewing on a smartphone or tablet while at the job site.

This new mobile web series includes dedicated sites for Viking’s Model D-2 air maintenance device, Model C-1 thermostatic release, Model C-1 pressure operated relief valve, Model VFR-400 release control panel, and Viking’s D-2 and E-1 accelerators. Dedicated mobile websites for additional products will be available in the near future.

Viking customers can access the new mobile websites by scanning a QR code or via the link: http://vikinggroup.mobi/p/128192.
Updated Water Supply Protocols document published

The National Fire Sprinkler Network Water Liaison Group has published updated guidance on water supply for sprinkler systems.

Endorsed by Water UK as well as UK sprinkler interests, the guidelines are an invaluable document for use in situations where sprinkler specifiers, designers, installers or maintainers need to reference an independent source of information in their dealings with water suppliers.

Water UK have also produced a position paper on the same subject, which can be downloaded from their website www.water.org.uk/home/policy/positions/fire-sprinklers

Part of the scope of the updated document is to provide guidelines for all those involved, to enable them to work together in a spirit of co-operation, and so ensure good working relationships. It outlines a set of principles that should form the basis of local policies and agreements, and establishes agreed guidelines as to how water supplied by water undertakers may be used for the suppression of fires by automatic fire sprinkler systems. It recognises that water companies may produce their own policy, procedures and technical guidance documents based upon these principles and guidelines to reflect their own specific situation.

The document explains that for operational reasons, including the minimising of leakage, the reduction of disruption from burst mains, and the reduction of power usage, water suppliers actively manage water pressures in the mains network. In doing so it is the water undertakers’ responsibility to manage water pressure to a level commensurate with providing an adequate supply to domestic customers, whilst meeting levels of service indicators.

The participants of the protocols acknowledge that there is no guarantee of any particular water pressure over and above the regulatory obligation, and that pressure levels that may have been available in the past may not be available in the future. However, water suppliers have agreed to provide information to the best of their ability on the prevailing mains pressure and any significant seasonal variations of which they are aware, to enable automatic fire sprinkler system design to be optimised.


House of Lords debate Water Bill

Problems experienced by the UK fire sprinkler industry in dealing with water supply companies were raised during the House of Lords debate on the Water Bill on 25 March 2014.

Lord Harrison, a member of the All Party Parliamentary Group on Fire Safety and Rescue, tabled an amendment on behalf of sprinklers, but withdrew it after reassurance from Lord De Mauley, that the Government were aware of the situation.

Lord De Mauley said he understood that a key driver behind the amendment was that problems can arise between fire sprinkler installers and water undertakers when connections for sprinkler systems are required. Those problems included undertakers requiring meters to be installed on the connections, smaller connection sizes than would be ideal for the sprinkler system, and requirements for internal storage.

“I am happy to put the facts on the record,” he said. “The Water Industry Act 1991 already states that water companies cannot charge for water for firefighting, so water used in fire sprinklers cannot be charged for. I do not believe that fire sprinklers need to be explicitly referred to in the legislation to be counted as providing water for firefighting. Plainly, that is what they do.

“The water industry and the fire sprinkler industry have worked together to create a voluntary protocol, with the aim of it being used to inform individual water companies’ policy on connections for fire sprinklers. The protocol is designed to assist the conversations between water companies and fire sprinkler installers by providing guidelines regarding the requirements for connections.

“I am aware that a previous version of this protocol was not always followed by companies, and that has led to the revision of the document. I put on record that the Government are very supportive of that document. I propose to write to all the water undertakers to demonstrate that support and to encourage them to update their policy documents.”

He continued: “Having heard about those problems for myself, I have asked my officials to follow this up with Water UK, the body which represents all the water companies. Water UK also supports the protocol and wants to make sure that it works. It recognises that, although all the chief executives of water companies are signed up to the protocol, we need to make sure that its guidelines are properly understood at an operational level. Water UK wants to work with us and the water companies to ensure that the protocol is followed and to eliminate those problems.”
Towards a Safer Wales seminars

BAFSA has almost completed a series of seminars in Wales, which aim to support the introduction of Regulations which require mandatory installation of fire sprinklers in all new residential and domestic premises in Wales.

Working in collaboration with all three of the Welsh Fire & Rescue Services, the seminars aim to promote a greater understanding and broader knowledge of the capacity, capabilities and consistent performance of sprinklers.

The final event will take place on 3 June at the Conwy Business Centre in Llandudno Junction, North Wales. Spaces are running out for this event, which is co-hosted by North Wales Fire & Rescue Service. To book a place visit http://www.bafsa.org.uk/news-events/book-an-event-testing.php.

Previously events were held in Cardiff and Carmarthen. The Cardiff seminar, held in November 2013, in collaboration with South Wales Fire & Rescue Service, was a sell-out, attracting more than 115 delegates. Welsh Assembly Member Ann Jones welcomed delegates to the event with a description of her nine year journey towards the implementation of the Welsh Measure.

The second Towards a Safer Wales seminar was held at the end of January 2014 in Carmarthen, in conjunction with Mid & West Wales Fire & Rescue Service. It attracted over 80 delegates, who heard Welsh Minister for Housing and Regeneration Carl Sargeant announce that the Welsh Government would fund a series of pilot installations prior to the commencement of the new regulations, which will come into force on 1st January 2016.

Welsh Government announces pilot sprinkler project

The Welsh Government has announced funding for a series of fire sprinkler installation projects within the social housing sector in the Principality.

Speaking at a seminar in Carmarthen organised jointly by BAFSA and the Mid and West Wales Fire & Rescue Service in February, the Minister for Housing and Regeneration, Carl Sargeant, said: “These pilot projects form part of the phased introduction of fire sprinklers in all new homes. This phased approach allows the building industry to gain experience and skills, and gives the sector the opportunity to innovate and reduce the costs of installing sprinklers.”

The projects come ahead of the Regulations which require the installation of fire sprinklers in new and converted care homes, children’s residential homes, hospices, halls of residence, boarding houses and certain hostels from 30 April 2014. From 1 January 2016 there will be a requirement to install sprinklers in new and converted houses and flats.

Addressing the seminar, the Minister said that the comprehensive project will monitor the whole approach to designing and installing fire sprinklers, with the aim of making the systems as robust, affordable and effective as possible. The project will include recording the views of designers, builders, building control bodies and tenants.

He added: “Domestic fires continue to have a devastating effect on individuals, families and communities across the world. We have just seen the tragic loss of life to residents in a care home in Quebec, as a result of fire. It is imperative that we do everything we can to make our homes, care homes and residential buildings as safe as possible.

“I am very proud that Wales is the first country in the world to require the installation of an automatic fire suppression system in all new houses and flats. Our policy on fire sprinklers is part of our continuing wider approach to promoting fire safety, and we will continue to set Wales apart as leading the way in this regard.”

It is understood that those responsible for a range of separate social housing projects, covering around 180 units across Wales, have already asked to be involved in the trial.

Globe wins employer of the year award

Globe Fire Sprinkler has won the Michigan Works in Arenac County Employer of the Year Award, in recognition of creating jobs and its dedication to paying employees a fair wage.

Chris Shannon, director of business and economic services for Michigan Works in Arenac County said Globe deserved the recognition for doing positive things for its workers.

Explaining his decision, he said: “The thing I look for is a company that has been adding employees; not necessarily just adding employees but doing things that are positive for their workforce.”

Globe President, Steve Worthington, said the company currently has 180 employees, and added: “At the height of the recession, we were down to 80 people, so you figure in the last four years we’ve probably hired about 100 people.”

He said employee retention is important to the company, which operates on mutual respect and consistency. In recent times the company had reviewed their pay scale and improved compensation.
BAFSA backs first Hoarding Awareness Week

BAFSA is fully supporting the first ever UK Hoarding Awareness Week, which is being co-ordinated by the Chief Fire Officers’ Association (CFOA). It will include a House of Commons launch event, an open letter to housing providers and political communities, and a media campaign to raise the profile of hoarding and fire-related issues.

CFOA has already established a Hoarding Working Group under its hoarding lead officer, Ian Bitcon, and organisers also hope that every UK Fire & Rescue Service will be involved in the campaign by organising events and raising awareness at a local level.

The issue of hoarding is believed to be growing in significance for Fire & Rescue Services, and is said to be something that requires a concentrated effort from a range of agencies.

In the worst cases, houses belonging to people displaying a tendency to hoard, clutter or collect may become a fire hazard due to a vastly increased fire loading which brings with it the increased risk of combustible products being stored in very close proximity to sources of ignition. Blocked exits caused by items such as stacked papers increase the overall risks.

Additional concerns for firefighters include the fire loading, the collapse of items onto crews whilst operating, and possible structural collapse caused by the additional weight of the hoarded and collected items.

It is known that hoarding tendency can occur in association with many different psychological conditions, and this, together with the fact that the elderly, people with physical impairments and those with mental disabilities are more at risk of fire, exacerbates the problem.

CFOA also says that as the UK’s population increases, particularly the highly vulnerable elderly group, it is highly probable that the amount of hoarding and cluttering will increase.

Hoarding Awareness Week will run from 19-25 May 2014 and will be supported by CFOA via a suite of centrally located resources including a toolkit, a flyer and research, all of which are available to fire & rescue services from the website http://www.cfoa.org.uk/HoardingAwarenessWeek2014

CFOA hopes that stakeholders from within the traditional fire sector and from outside will collaborate to achieve the campaign’s objectives, which are to spread more widely an awareness of hoarding facts; promote greater understanding and acceptance across target influencer communities; and encourage a stronger tendency for target influencers to support and promote.

Among the target groups are central and local government, social housing landlords, social care and mental health agencies, local authority housing providers, and any organisation that encounters people who display a tendency to hoard or clutter.

Fire test demonstrates sprinkler use in hoarding scenario

In a further development, Mark Andrews, Deputy Assistant Commissioner, London Fire Brigade commissioned the BRE to determine how domestic sprinklers would respond to fires in hoarding environments where the fuel load is generally significantly greater than that which BS 9251 systems are expected to counter. LFB, in discussion with BAFSA (which part funded the test), believe that sprinklers could be a significant factor in reducing risk to occupants and firefighters where this behaviour was evident.

A live burn was conducted on Wednesday 23rd April 2014 with Triangle Fire Systems Ltd fitting and controlling the sprinkler system during the burn. For the purposes of the test, a single sidewall head, centrally located on one wall, was chosen as a realistic option for conditions where there would be very limited access to floors and ceilings due to the amount of clutter.

The 4m x 4m fire test room was well stacked with furniture, cardboard, papers and electric appliances to about level 5 on the LFB clutter index, and the fire was started by BRE technicians using a heating coil.

It took about 6-8 minutes before the fire really got going. The smoke alarm activated and about 9 minutes into the test the sprinkler operated.

Flow rate, controllable through the main valve, was kept steady at about 45 l/m. This flow rate was selected from the Approval Chart of the UL 1626 sprinkler head which is 45 l/m at 0.62 bar for a room no greater than 4.3m by 4.3m.

Despite the higher than normal fire loading, the sprinkler started to control the fire within a short space of time and although the fire continued to burn inside a TV set, there was limited fire spread within the main area of fire damage limited to about 1m x 1m. Crucially the fire never looked like progressing to ‘flashover’.

Although an ad hoc test, the observers present, who represented CFOA, London Fire Brigade, BAFSA and care providers working with persons with hoarding tendencies, were convinced by the effectiveness of the single sprinkler head in reducing the effects of the fire, offering a potential effective tool to reduce fire risk in hoarding circumstances.
BAFSA took to the big screen on 4 December 2013, holding a seminar in the newly restored Birks Cinema in Aberfeldy, Scotland.

The event proved a great success attracting over 70 delegates, including building control officers, fire engineers, housing officers, safety officers and officers from the Scottish Fire & Rescue Service.

Presentations were provided by a range of industry speakers, including Ross Haggart from Scottish Fire and Rescue Service; Celestine Cheong of the Business Sprinkler Alliance; BAFSA’s Stewart Kidd and Ian Gough; Tommy Seggie from Scottish Water; Alan McPherson of FM Global; and Jim McGonigal from the Scottish Building Standards Agency.

The event was well received and generated a considerable number of questions, with particular interest in third party certification, timber-framed buildings and water-related issues. To download the presentations visit www.bafsa.org.uk.

BAFSA is now providing a range of training courses for key audiences which it wishes to provide with reliable and relevant information on the wider benefits of sprinklers. These include fire & rescue officers and architects.

A pilot one day Introduction to Sprinklers course for 24 London Fire Brigade officers was undertaken in December 2013 and two further courses were delivered to Hampshire Fire & Rescue Service in March. Courses for Cheshire and the Scottish Fire & Rescue Service are planned for later in 2014. All carry IFE CPD accreditation.

Meanwhile, architects are also being targeted with authoritative fire suppression systems training, by the Business Sprinkler Alliance, which has RIBA approval to deliver up to five separate short courses for architectural practices. BAFSA is undertaking delivery of the courses, which also have CPD approval. The first courses took place in Swansea and Newcastle in April.

BAFSA conducts labour market intelligence survey

BAFSA has recently commissioned a comprehensive labour market intelligence survey across its membership which will identify the:

- Nature of the sector: in terms of number and type of employers, size and composition of the workforce, the economic contribution and those major businesses account for the majority of turnover in the sector;
- Workforce: demographics, including the size and occupational breakdown. It will also examine any hard to fill vacancies;
- Current skills and labour market needs: of employers, as well as how well the current workforce meets the needs of employers;
- Future requirements, trends and needs: how the demand for skills and labour is likely to change over the course of the next decade. This will include insight into the likely volume and composition of the workforce in the future.

The full findings and recommendations will be presented at Fire Sprinkler International 2014 and will assist BAFSA in continuing to develop the skills and knowledge needed for the workforce.
Sir George (Hugh) Pigot to retire

Sir George Pigot of Residential Sprinkler Associates (RSA) has announced he is to retire this year, attending his last RSA AGM on Wednesday 7 May.

Sir George has campaigned for the installation of residential sprinklers since first entering the industry in 1996, when he was asked to join the Domestic Sprinkler Systems Group (DSSG), which had been formed under the auspices of the Institute of Plumbing. In 1998, Sir George suggested the formation of the Residential Sprinkler Association (RSA) to further the group’s aims. The RSA was very successful and was influential in the publication of a British Standard Draft for Development (DD251). This gained enormous support from the fire & rescue service and raised interest in sprinklers generally, resulting in a doubling of sales of residential sprinkler heads between 1995 and 2005.

He has fought the case for sprinklers with passion and was active in assisting Ann Jones AM, of the Welsh Assembly in pushing forward the Domestic Fire Safety (Wales) Measure. Ms Jones says: “I was and will always remain grateful for the excellent support, advice and full backing that Sir George offered to me during the passage of the now successful Domestic Fire Safety (Wales) Measure”.

Peter Armstrong, Chairman of BAFSA Council said: “There are numerous fire sprinkler installation companies who would not have existed without the pioneering work of Sir George Pigot. There are thousands of people who sleep easier at night in the knowledge that their life and property is protected by an automatic sprinkler system.

“It was Hugh Pigot who opened the eyes of our industry and of those who govern us to the realisation that automatic sprinkler protection can be applied to residential and domestic situations and as a result can play an important part in the preservation of life. I much admired his tenacity and determination and I wish him the very best for life in retirement.”

New sprinkler learning programme in development

Neath Port Talbot College Group has developed and delivered a pilot learning programme which aims to deliver a qualification for the active fire industry and introduce existing practitioners to the practical skill and knowledge required for installing automatic fire sprinkler systems in domestic dwellings.

BAFSA Skills & Development Committee members have been guiding the development of the, ‘Award in the Installation of Automatic Fire Sprinklers’, which aims to upskill the existing mechanical services sector ahead of the introduction in Wales of measure making the installation of fire suppression systems in all new residential buildings mandatory.

The committee assisted in developing delivery objectives which, in turn, informed the development of the initial Scheme of Work, covering:

- Assessment criteria/delivery objectives
- Method of learning
- Resources required
- Interaction
- Formative assessment

An initial four-day pilot course took place in April 2014 involving four companies, including Domestic Sprinklers Ltd, AD Sprinklers Ltd, Project Fire Ltd and Hall Fire Protection Ltd. The feedback and comments from all attendees was extremely positive.

Colin Taylor of Domestic Sprinklers, who attended the pilot course, stated: “Having just attended the NVQ course, provided by NPTC, I can wholly endorse the course as the best I have ever attended. The content of the course will ensure anyone completing it is capable of installing systems to meet the standards and to a very high standard of workmanship. Excellent tutors, who have a wealth of knowledge and a passion for the subject...”

Experience from the pilot course will be built on to develop a nationally recognised qualification, available throughout England and Wales.
Victaulic has launched a hybrid fire suppression system, ‘Vortex’, which it says extends the boundaries of existing technologies and surpasses the capabilities of both inert gas and water mist systems.

Designed for datacentres, the automotive, power and steel industries, the technology utilises both water and nitrogen in a combined suspension to both cool the hazard area and remove the oxygen that sustains the fire, using high velocity and low pressure. It fills the hazard space at 64km/h, quickly extinguishing the fire with little to no water presence, leaving limited residual moisture, no toxic chemicals and offering full design flexibility.

Victaulic says the system, which is the first system to be approved to FM Approvals in FM 5580 ‘Hybrid Water & Inert Gas for Fire Extinguishing Systems’, can be utilised in a sealed or open space with no requirement for room integrity.

Standards under review

The British Standards Institution is currently reviewing several standards that impact on the sprinkler industry.

The 2014 edition of BS 9251: Sprinkler systems for residential and domestic occupancies. Code of practice was published as a draft for public consultation (DPC) on 29 March. The consultation period closes on 29 May following which the review group will meet in June and July to consider the response and finalise the document.

BS 9991: Code of practice for fire precautions in the design, management and use of residential buildings is also undergoing a review. Comments are invited, and can be sent to Sophie Watson at sophie.watson@bsigroup.com. BAFSA will submit comments via the R&D Group/Technical Committee.

Work is also under way to convert the existing water mist Drafts for Development (DD8458 and 8489) into full BS status. Chaired by Nigel Firkins and Bob Whitely this work is currently planned to be completed early in 2015.

The Worshipful Company of Firefighters’ 2014 Fire Lecture will take place on 28 May 2014 at Insurance Hall in London. Entitled High Rise - Not High Risk, speakers include former Home Secretary Lord Howard, Ron Dobson, the Commissioner of the LFB, Jones Yeung, Assistant Director, HK Fire Service, Fire Minister Brandon Lewis MP, and Chief Fire & Rescue Advisor Peter Holland. Full details of the event are available from: www.firefighterscompany.org/events/FireLecture2014Notice.html

Lubrizol has appointed Alexander Crisp as Market Development Executive for BlazeMaster in the UK, Ireland and the Nordic countries, with his main focus on the UK.

Warrington Certification Limited (WCL), the independent provider of fire certification schemes across the globe, has appointed Simon Ince as Strategic Alliance Partnership Manager. Simon, who has been with WCL for seven years, will provide the link between WCL’s certificated clients and their own clients, promoting their services and products for fire safety diligence.

The Health and Safety Executive has announced that consultation on long-awaited proposals to revise the Construction (Design & Management) Regulations 2007 (CDM Regulations) has begun. There will be a 10 week period of consultation, with the amended Regulations likely to come into effect in April 2015.

The British Standards Institution has appointed a new Programme Manager for the FSH/18 Fixed Fire Fighting Systems Technical Committee. Mrs Susan Revell will assume responsibility immediately for FSH/18 and its sub-committees. Susan is an experienced programme manager who will manage approximately 50% of BSI’s Fire Committees. The move follows the transfer of all the fire-related committees from the Governance and Resilience Sector to the Construction Sector and a re-focussing of BSI resources for Fire Committees.
Office Building, London
A fire in the basement of a 10 storey office block on New Oxford Street, London on 20 April 2014 was extinguished by the operation of two sprinkler heads. The fire, which appears to have started in a transformer, was reported to London Fire Brigade at 1319hrs. Two fire appliances were dispatched but the fire was found to be out on arrival.

Secondary school, Leicestershire
At 1445hrs on 12 March 2014, Leicestershire F&RS were called to a fire at Wigston secondary school. Full details are awaited but it appears that the school’s sprinkler system extinguished the fire which resulted in damage extending only over 5m².

Supermarket, London
A blaze at a supermarket in North London on 31 March, 2014 was controlled by a sprinkler system. London Fire Brigade (LFB) was alerted to the fire in a loading area at the supermarket at 0156hrs.

Firefighters from Hornsey, Kentish Town and Stoke Newington attended the incident and the blaze was deemed under control at 0311hrs.

Damage was confined to packaging and waste that was being kept outside at the back of the premises.

A spokesperson from LFB said: “Thankfully this building was fitted with sprinklers, which helped to prevent the fire from spreading into the supermarket and causing more serious damage.”

Primary school, London
Two appliances attended a fire in a newly constructed three-floor primary school in Tulse Hill, London, at 0650hrs on 27 March 2014. The fire at Fensstanton Primary School involved a gas boiler within a ground floor plant room. A sprinkler head within the plant room controlled the fire which was then confirmed extinguished by a BA crew using a main jet. Damage was restricted to the boiler involved. A second similar boiler nearby and all other equipment within the plant room was undamaged. Four cleaners evacuated the building without injury.

Old County Hall, London
At 0325hrs on 21 March 2014, a fire occurred in a cafe bar/restaurant situated on the ground floor of the eight-storey Old County Hall Building in Lambeth, London.

One sprinkler head activated to control the fire. Four LFB appliances were mobilised to the incident and one main jet and hose-reel were used in the follow up firefighting operations.

Flat, Surrey
At about 2100hrs on Wednesday 26 March 2014, a fire occurred in a cooking appliance in a ground floor flat of a two-storey residential block situated on the ground floor of the eight-storey Old County Hall Building in Lambeth, London.

One VK457 concealed sprinkler head, fed by mains water supply, operated to control the fire, which was extinguished within an estimated 3 minutes.

Eight m² of the property was affected by the fire and neither of the two occupants were hurt in the incident. Surrey F&RS attended with one pumping appliance but no firefighting action was required.

Laundry, Hertfordshire
At about 2130hrs on Saturday 15 March 2014, a fire started in a 7.5 tonne delivery lorry within the enclosed loading bay of a large laundry in Watford, Hertfordshire.

The fire started while the occupier was melting wax in a saucepan in the building and the surrounding environment.

Six firefighters in breathing apparatus used water jets to surround and extinguish the fire. Firefighters then worked with the on-site team and their machinery to dig out and dampen down around 150 tonnes of household waste.

Station Manager Richard Humphrey said “The sprinkler system saved the day - a number of sprinkler heads were operating, containing the fire to one area and the building was heavily smoke logged.”

Waste recycling plant, Wiltshire
Wiltshire Fire & Rescue Service attended a fire at the new multi-million pound waste recycling plant at the Northacre Industrial Estate, Westbury on 18 March 2014. Sprinklers installed in the building contained the blaze to one area, limiting the damage to the building and the surrounding environment.

Six firefighters in breathing apparatus used water jets to surround and extinguish the fire. Firefighters then worked with the on-site team and their machinery to dig out and dampen down around 150 tonnes of household waste.

Station Manager Richard Humphrey said “The sprinkler system saved the day - a number of sprinkler heads were operating, containing the fire to one area and the building was heavily smoke logged.”

Shopping centre, Hertfordshire
At about 2000hrs on Friday 28 February 2014, a fire started in the ‘Wonderbra Shop’ at the Galleria Outlet Shopping Complex in Hatfield, Hertfordshire. The fire, which started in a small office in the back of the store, was caused by an extension
lead overheating and igniting adjacent combustible materials.

A single sprinkler head operated, suppressing the fire until the arrival of the F&RS. A single hose reel jet was used to ensure the fire was fully extinguished. A smoke extraction system directed products of combustion out of the shop to the rear of the complex. The mall - which houses 80 designer outlet shops on 20,500m² of retail space, in addition to a multiplex cinema and many well-known chain food outlets - was unaffected by the incident.

**Flat, Kent**

On the 8 February 2014 a fire occurred in the kitchen of a single bedroom flat in Ramsgate. The premises had been fitted with a water mist system funded by Kent F&RS and East Kent Housing.

The water mist system operated and brought the fire under control and then fully extinguished it. There was only a small amount of fire damage and virtually no smoke damage at all. No additional firefighting action was required. Fire damage was limited to scorching of an over-worktop cupboard and a small area of painted surfaces in the immediate vicinity.

The occupant was in the premises at the time yet was unaware of the fire, which was thought to be caused by the misuse or malfunctioning of a toaster.

**Shopping centre, Essex**

A sprinkler system prevented a major blaze in the Eastgate Shopping Centre in Basildon on Wednesday 5 February. Essex F&RS was called to the shopping centre at 2335hrs after a fire broke out in a unit used by a local radio station. On arrival, firefighters found that the sprinkler system had activated and contained the fire.

Assistant Divisional Officer Mark Turnbull, Incident Commander, said “There is no doubt in my mind that had it not been for that sprinkler system this would have been a huge fire involving far more of the shopping centre. The sprinklers came on in the unit, contained the fire and partially extinguished it.”

**Hospital accommodation, London**

At just before 1945hrs on the evening of 3 February, a kitchen fire occurred in a flat containing cooking oil at a medium to high rise accommodation block for nurses and doctors in Wandsworth, London.

A single sprinkler head from the town mains fed residential sprinkler system actuated in the kitchen, controlling the fire. Two fire crews attended but were not required to take any further firefighting action.

Fire damage was recorded as less than 5m². The occupier sadly suffered steam burns when, contrary to all safety advice, they threw water on to the blazing pan.

**Plastics factory, Lancashire**

A fire in a plastic production building in Earby, Lancashire early on 29 January was controlled by sprinklers, according to Lancashire F&RS. Eight firefighters wearing breathing apparatus used two jets and hose reel to extinguish the fire by 0900hrs.

The fire, which started in the calendar department, caused damage to a large quantity of recycled plastic, an electrical control panel and 10m of electrical cable. The building was heavily smoke logged, and two ventilation units had to be used to help clear smoke from the structure.

The fire service spokesman said: “Because the building was fitted with sprinklers, the fire was able to be put out quicker. This allowed the firefighters to deal with it before it spread.”

**Fashion store, Ipswich**

Sprinklers have been credited with controlling an outbreak of fire in the Peacocks store in Carr Street, Ipswich shortly after 1000hrs on 22 January. The fire has been tentatively blamed on an electrical fault.

**Flat, London**

At about 1440 hours on the afternoon of Sunday 12 January a cooking oil fire was reported in a flat of a medium/high rise block in Wandsworth, London. One head is reported to have controlled the fire with no firefighting action recorded for the two crews who attended this incident.

**Primary school/academy, Northampton**

A fire which broke out at a Primary Academy in Northampton on 9 January 2014 was successfully extinguished by one sprinkler head.

Northamptonshire F&RS said the fire occurred because a plastic storage crate had been inadvertently placed too close to a cooker hob, which was then accidentally switched on, setting the crate alight.

**Flat, London**

At just before 2300hrs on Thursday 9 January a fire occurred in a flat in a 10-plus storey residential block in Camden, North London. One sprinkler head on the residential system activated to control the fire. Two pumping appliances were dispatched to the incident but no firefighting action was recorded as taking place.

**Student accommodation, London**

At about 2037hrs on Monday 30 December 2013, firefighters were called to a fire in a kitchen at student halls of residence in Tottenham, London. Two appliances were sent to the incident, and when crews investigated they found there had been a cooker fire in one of the accommodation units. The fire had been extinguished by one head of the sprinkler system, and no firefighting action was required.

All occupants safely vacated the building when the alarm was raised.
Shopping centre, London
2,500 people were evacuated from a food service area in Southside Shopping Centre, Wandsworth, London, on 21 November 2013, when a fire occurred in a 1st floor restaurant. The fire involved a cooking appliance and the ducting/fume extraction system. A single sprinkler head sited adjacent to the ducting, in the false ceiling activated. This suppressed the fire while firefighters took further action to extinguish the fire in the ducting.

Food outlet, London
Five sprinkler heads activated when fire broke out in a London food outlet at 1857hrs on 22 November 2013. Igniting in an area between a pizza oven and a BBQ, the fire spread to the ducting, activating one sprinkler head in the area beside the ducting and four in the roof void. The first head to operate was adjacent to the point of ignition and the ducting. It was rated at 68°C, while the others in the roof void were rated at 93°C.

Retail premises, London
At 1111hrs on 23 November 2013, a fire occurred in a small shop in an arcade above South Kensington tube station in Transport Interchange, London.

Two 68°C heads activated, and contained the fire which started in an electrical distribution board in the basement of the two-storey, ground and basement shop.

Retail/Superstore, Dorset
Shortly after midnight on 31 October 2013, Dorset F&RS were called to a fire in a large supermarket at Cabot Lane, Poole.

Three fire crews from Poole and one from Hamworthy attended the incident, and crews quickly located a fire above the office area within the shop. The fire had been detected and controlled by the automatic fire sprinkler system installed within the building. Minimal damage was caused, due to the quick activation of the system. Firefighters fully extinguished the fire, and staff from the store were able to start clearing the damaged area before reopening.

Academy school, Surrey
In October 2013, the Academy School in Carshalton, Surrey, suffered a small fire caused by an overheating laser cutter.

It was reported that the door to the room was closed, and the F&RS ran charged hose up the central staircase. However, by the time they opened the door, the fire had been fully extinguished by the sprinklers. There was no spread of fire or smoke damage beyond the room involved, which was back in use after a short time, following remedial work.

This was the second time that the school’s sprinkler system has extinguished a fire – the first being in June 2013 when four appliances from London Fire Brigade attended an incident which was understood to have begun with an electrical fault in a photocopier.

On that occasion, some 1,100 pupils were safely evacuated before the fire brigade arrived, by which time the fire had been mostly extinguished by the sprinkler system.

Homeless hostel, Cardiff
On the evening of 15 October 2013, a single head on a mains-supplied BS 9251 sprinkler system operated to protect the occupant of the room of origin at the Huggard Hostel for the Homeless in Cardiff. The man had reportedly locked himself in the room before starting a fire.

No injury was reported, and fire damage was less than 5m², with minor smoke damage to the ceiling and some water damage to electrical outlets. The fire was out on the arrival of the F&RS. The sprinkler system had also operated the building’s AFD, and an evacuation was carried out. The sprinkler system was immediately reinstated. It was clear that the room was occupied when the fire started, refuting suggestions from some parties that sprinklers are unlikely to be effective in preventing loss of life when the compartment of origin is occupied when a fire starts.

Student accommodation, Liverpool
Two appliances from Merseyside F&RS responded to a fire in a kitchen on the 5th floor of student accommodation in Lime Street, Liverpool, at 0531hrs on Friday 11 October, 2013.

The sprinkler system in the building activated and prevented the fire from spreading. Smoke alarms also activated and alerted other people in the building.

Firefighters wearing breathing apparatus used a CO2 extinguisher to extinguish the remaining flames in the cooker hood, and a woman was led to safety from the area affected by the fire.

Only the cooker top, extractor hood and a pan of food were damaged by the fire, which was extinguished by 0553hrs.

Warehouse, Milton Keynes
At 0637hrs on 12 October 2013, a fire occurred in a warehouse at Bradbourne Drive, Tilbrook, Milton Keynes. Two fire appliances attended. The sprinkler system had activated, and the fire was out on arrival of the F&RS.

Care home, Kent
A sprinkler system in a care home in Dartford, Kent, successfully extinguished a fire in a room equipped with a washing machine/tumble dryer on 23 September 2013.

The fire was out when the F&RS arrived, and there was little damage.

This was the second time fire had occurred in the room; the first having been reported as more serious. ❖
AFSA’s 40th celebrations are starting with a bang with *Fire Sprinkler International 2014*, the largest ever sprinkler-focused conference to be held outside of the USA.

Eighteen months after the birth of the idea, BAFSA and the European Fire Sprinkler Network (EFSN) will bring *Fire Sprinkler International 2014* to an audience of 345 delegates on 20-21 May, supported by 36 exhibitors and six sponsors.

Located in the high tech modern surroundings of the Trinity Suite of the Grange Tower Bridge Hotel, delegates have a challenging and informative two days ahead of them. The packed programme is as diverse as it is dynamic with a cocktail of plenary sessions and parallel workshops, delivered by more than 40 specialist speakers from across the globe.

The conference themes are business sustainability, sprinkler innovations and standards.

**Business sustainability:** Buildings that burn to the ground if they suffer a fire are not sustainable, nor are the businesses that depend on them. For a business to be sustainable it not only needs a valid business model, it also needs to be able to withstand unexpected threats, including that of fire. One of our keynote speakers will address the economics of protecting businesses with sprinklers, both from the point of view of the business owner and from that of a nation’s economy.

Throughout the conference, delegates will hear updates on how best to use sprinklers to protect businesses and how to improve system reliability. Allied to this there will be breakout sessions on fire engineering, installer training, corrosion, pipe bracing and Building Information Modelling.

**Sprinkler innovations** enable risks to be protected at lower cost, so making sprinklers more attractive to business owners and others. As a result, buildings that would otherwise not have had sprinklers installed are protected. Plenary speakers will discuss evolving fire challenges and innovations in products and system designs to deal with them. Going into more detail there will be breakout sessions on sprinkler research, water mist, system innovations and new design concepts.

**Standards** set the performance levels we wish to achieve from sprinkler systems and are the backbone to the success of sprinklers. Two breakout sessions will be devoted to developments in European and international standards.

In between conference sessions, delegates can comfortably view all of the exhibition stands, which are situated in 4 areas within the conference suite.

Networking, catching up with old friends and colleagues and making new contacts are all an essential part of attending a conference and there will be a Welcome Cocktail Reception after the first day with refreshments and a unique musical theatre cabaret performance from Bowjangles.
Join the party

BAFSA is celebrating its 40th anniversary this year and we hope that our members will want to join in.

On the evening of 13 November at the Bristol Royal Marriott, following the 2014 general meeting, there will be a Gala Dinner with fine food and wine plus musical and magical entertainment throughout the evening. Tickets will be £65 with tables of 10 available at £585.

For a more energetic celebration, pitch your sporting talent against colleagues and fellow members in the BAFSA Challenge Day (clay pigeon shooting; human shepherding, golf... and more) on 3 June, 2015 at the Marriott Forest of Arden, followed by a well-deserved barbecue party. This is the day before the BAFSA Spring Members’ meeting and Local Authority Seminar which will be at the same location.

To register your interest in the BAFSA 40th Anniversary celebrations email Wendy at marketing@bafsa.org.uk.

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NFPA Global Research Update: High Challenge Storage Protection

The National Fire Protection Association and the Fire Protection Research Foundation is offering a one-day seminar at the Tower Grange Hotel, London on 22 May, immediately after Fire Sprinkler International 2014.

The event will consider high challenge warehouse fire protection strategies, which are of global concern. With new high hazard commodities appearing in challenging storage arrangements, new approaches to fire protection are required.

Featuring recent research work sponsored by the Foundation’s Property Insurance Research Group and other global research organisations, there will also be presentations from the insurance industry and global property owners to provide a perspective on emerging needs.


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2015

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