New Chief Executive appointed

BAFSA Council has appointed Keith MacGillivray MBE, MA, BSc as the Association's new Chief Executive (formerly Secretary General). Keith will take up the appointment on 1st January 2016 and will be responsible for all aspects of management and development of the Association and the support of the Association’s volunteer leadership.

Keith is already known to many BAFSA members and the wider fire community as the able and passionate coordinator of Sprinklers Scotland. He will join BAFSA in September 2015 and work alongside Stewart Kidd, the current Secretary General to achieve a smooth transition of BAFSA’s management.

On his future with BAFSA, Keith commented “Taking over from Stewart Kidd, will be a hard act to follow and I recognise how much has been achieved by BAFSA over the last forty years”.

BAFSA takes pride in its achievement

Working in conjunction with Industry Qualifications (IQ), our preferred Awarding Organisation, BAFSA is pleased to announce the approval of a Level 2 Certificate in Fire Sprinkler Installation (QCF), the first national qualification for sprinkler installers.

Mike Green, Vice Chair of BAFSA, and Chair of the Skills & Development committee which contributed significantly to the development of the qualification applauded the achievement of the committee by saying “the dedication and hard work of the team who has developed this important qualification will continue to ensure this qualification, and future developments, benefit the whole of the industry.”

Sallyann Baldry, Head of Business Development, IQ had this to say “It has proved a rewarding experience to work with such committed individuals who have voluntarily come together for the betterment of their industry.”

Ruth Oliver, BAFSA Skills & Qualifications Technical Adviser who has been working to achieve the qualification comments “This exciting opportunity will allow individuals to evidence their competencies within sprinkler installation to those who are investing in sprinkler technology in addition to raising the professionalism of the sector.”
It’s hard to believe we are already halfway through the year. With the General Election behind us, many people are seeing real improvements in business and experiencing a surge in enquiries and new work. One major constraint in servicing this demand is the shortage of skilled labour in the sprinkler industry. As the economy picks up and demand grows, the talent shortage is becoming more acute, with people willing to switch from one company to another seeking higher salaries as there are not enough qualified personnel to meet the demand. This situation will only get worse unless we address the demonstrated shortage of qualified and competent people. I cannot think of a greater priority for us as an industry than addressing the issue of skills and qualifications. In fact, as many of you know, BAFSA has been working hard to move forward the upskilling of our industry and establishing formal qualifications for operatives working in installation and elsewhere. I’m pleased to report significant progress has been made and we are at last seeing some concrete results from all the time and resources we have committed. An update on this progress is shown elsewhere in this publication.

I’m also pleased to report we have now successfully concluded our search for a new Chief Executive to lead the association, and I am delighted that Keith MacGillivray MBE, will take up this appointment on 1st January 2016. Stewart Kidd, who will be standing down as Secretary General after 15 years in post, has agreed to continue assisting the association in specific areas, thus providing the necessary continuity.

Elsewhere, following its established policy of working in partnership with other bodies where this is possible, BAFSA has now also reached an agreement to work more closely with the FPA in a number of areas where we share common interests. These include updating the LPC Sprinkler Rules, training and development, and participation at the FPA’s Fire Sector Summit in November. BAFSA has also been invited to take a seat on the FPA’s board.

I hope you all enjoy what is left of your summer and hope to see many of you at our members’ meeting in Scotland on 17th September.

John McCann

Ashes of Failure?

Two recent significant fires in large apartment blocks have demonstrated (if any more evidence is needed) the failings of timber framed construction without fire suppression. Both the fires, a five storey block in Wigan on 15 June and a four storey block Canterbury on 4 July, involved timber framed (TF) construction.

Significant fire service resources were committed to extinguish both these fires (15 pumps and aerials in Wigan) and local authority emergency plans had to be implemented to provide emergency centres for temporary accommodation of the 200 plus residents evacuated. While no injuries were reported, witnesses were stunned by the rapid growth of both fires which have left residents permanently homeless. The entire Canterbury development has since been demolished.

Where flats are constructed in accordance with the Building Regulations there should be no differences in the levels of safety afforded to residents and the fact that no one was injured in either fire would seem to prove this. However, the frequency of such fires (and fires in TF developments under construction) should surely generate some official concern at the wholesale loss of housing and the sheer speed with which these dwellings were lost.

In North America, where the use of timber framed construction is the norm, and where apartment blocks do not need to be brick-clad to sell, sprinklers are routinely specified in multi storey developments. The long-awaited review of Approved Document B gives an opportunity for the evidence of fires in TF construction over the past 10 years to be examined and an assessment made of BAFSA’s contention that all such construction of two storeys or more should be protected by a BS 9251 sprinkler system.

Image courtesy of Kent Fire & Rescue Service
IQ Level 2 qualification explained

The IQ Level 2 Certificate in Fire Sprinkler Installation (QCF) is intended for people employed in the mechanical fire protection sector, installing fire sprinklers, to develop the knowledge and competencies necessary to meet the industry standards for the installation role. The framework of the qualification provides sufficient flexibility for the variations in different jobs and locations.

The content, developed by BAFSA’s own Skills & Development Committee, covers Health and Safety; knowledge of the fire sprinkler industry; relationship building and communication; understanding how to manage own resources; maintaining compliance and dealing with non-compliance; installation and final handover procedures.

The qualification, comprising seven units totalling 209 guided learning hours, will be initially delivered by BAFSA’s preferred Training Providers; Neath Port Talbot College, in South Wales and Manchester College, in NW England. BAFSA will continue to work with both colleges to ensure that the qualification is delivered successfully and is fit for purpose for the workforce.

Peter Snowball, Head of School, Building Engineering Services, Neath Porth Talbot College Group comments “As the first FE institution to be a member of BAFSA, NPTC Group of Colleges, is eager to be the first college to deliver this qualification to the industry in Wales and we would like to congratulate everyone involved”.

Chris Partington, Head of Construction Curriculum, Manchester College comments “Manchester College is proud to be the preferred learning provider for this new and exciting qualification for BAFSA and its members and we are looking forward to delivering a professional and valuable qualification for the fire sprinkler industry”.

Pilot courses will commence in September with formal launch dates at both venues taking place on 29th September at the Manchester College and 28th October at the Neath Port Talbot campus. Further details are available from BAFSA’s new Skills & Qualifications webpage bafsa.org.uk or by contacting Qualifications@BAFSA.org.uk

Serious concerns raised by UL

Deficiencies in Early Suppression Fast Response (ESFR) sprinkler samples from China are likely to cause failure of the system.

A recent report describes the results of UL’s testing of unused Early Suppression Fast Response (ESFR) sprinkler samples that were reported to be representative of sprinklers installed in several existing storage facilities located in China. These sprinklers were not marked as being certified by UL or any other certification organisation.

Two general types of upright style sprinklers, both marked as being ESFR sprinklers, were evaluated. The first sprinkler construction was marked “ESFR-202/68°C,” suggesting the sprinkler had a nominal discharge coefficient of K=202 L/min/(bar0.5) (14.0 gpm/psig0.5) with a temperature rating of 68°C (155°F).

The second construction was marked “ESFR-363” and “74°C” suggesting the sprinkler had a nominal discharge coefficient of K=363 L/min/(bar0.5) (25.2 gpm/psig0.5) with a temperature rating of 74°C (165°F).

The key areas of potential safety deficiencies that were identified as a part of UL’s investigation having a limited scope were:

1. O-ring Water Seals
   O-rings have not been permitted in UL certified sprinkler constructions since January 9, 2003.

2. Upright Installation Orientation
   Currently, there are no UL certified ESFR sprinklers intended to be installed in the upright orientation.

3. Coverage Sprinkler rather than an ESFR Sprinkler
   The upright ESFR sprinkler was visually observed to be constructed in a manner similar to a currently UL certified extended coverage storage sprinkler.

4. Inferior and inconsistent construction
   Inferior materials of construction were used for some of the components which may lead to premature sprinkler degradation and corrosion. Also, some of the components were visually observed to have inconsistent dimensional characteristics.

5. Performance test results
   Limited testing conducted in general accordance with ANSI/UL 1767 yielded several non-compliant results such as:
   (1) slow response characteristics or non-operation
   (2) lodging of operating parts during activation which adversely impacted the sprinkler discharge characteristics, and
   (3) deformation of the sprinkler caused by the discharge of water at high pressure.

In summary, the potential safety deficiencies described herein are believed to raise serious concerns regarding the ability of these sprinklers to provide the level of protection intended for sprinkler systems referenced in NFPA 13.

Some of these deficiencies are likely to cause failure of the sprinkler system to suppress or control a fire.

The full report can be downloaded via this link bafsa.org.uk/pdfs/news/7/00001947.pdf
Suspended ceilings – or false ceilings as they are also referred to - are a common sight in both commercial and industrial settings across the globe. Simon Ouellette, Engineering Services Supervisor at BAFSA member Victaulic, leading manufacturer of mechanical pipe joining and fire protection systems, addresses the unique fire protection challenges they can pose and technological solutions.

Suspended ceilings are popular with engineers and architects because they offer a low-cost, easy-to-install solution to help hide fittings from plain sight. Since their widespread adoption in the 1960s, the integration of fire protection with suspended ceilings has proved problematic, as hard piping systems have been unable to handle the full range of challenges they present and proper sprinkler head positioning with the ceiling surface is a significant safety issue that is often overlooked.

Thanks to their innate flexible nature, suspended ceilings are prone to settlement and move after installation through the course of time. Additionally, they will move if modifications are made to the building, such as the addition of extra installations, including lighting.

This “ceiling creep”, combined with hard pipe systems, means that while suspended ceilings may move with time, the sprinklers themselves remain in a fixed position as the ceiling slides slowly away. The result is sprinkler misalignment and loss of effectiveness to combat fires.

Wire cable is used to connect a suspended ceiling to the concrete structure of the building and hard piping is similarly fixed. However, because the fixed rigid piping does not move with the ceiling plane, if the ceiling drops there is a danger that a sprinkler will sit too high and be isolated from airflow in the room.

Flexible drops
A breakthrough solution to this problem came in the 1980s when engineers in Japan sought to cancel out the adverse effects of seismic activity on structures. This led to the development and implementation of flexible hoses in place of conventional rigid pipe. These hoses are now known as flexible drops.

A properly installed sprinkler head needs unobstructed airflow access from the space being protected. If a sprinkler head is not properly positioned with the ceiling plane, the sprinkler will not be exposed to heat and airflow, leaving the ceiling to act as a heat deflector that potentially delays or prevents the sprinkler from activating in time to check the growth of a fire.

In the late 1990s UL developed a specific standard for flexible drops, known as UL 2443: Flexible Sprinkler Hose with Fittings for Fire Protection Service and other ratings soon followed, including FM Approvals and draft standard LPS 1261, with requirements for testing flexible drops for automatic sprinkler systems.

The latest generation of flexible drops have built on the original designs. Braided hoses approved by FM, UL and LPCB are now available, designed to offer tighter bend radii and increased number of allowable bends. The latest one-piece bracket designs come pre-assembled with no loose parts to drop or lose and centre-of-tile indicators on the bracket aid with correct positioning and increase safety.

Following extensive Victaulic R&D, developments in the technology allows better integration of fire protection installation into the construction schedule. Systems such as VicFlex from Victaulic are designed to install much more easily than traditional rigid piping systems whilst delivering more durable performance. Recent examples of installs include the new 103,000sqm/1,108,682 sq. feet Kings Avenue Mall, one of the largest commercial developments in Cyprus.
Sprinkler funding underway

Earlier this year the London Fire Brigade (LFB) extended its intention to support the installation of fire suppression systems, thanks to allocated funds from a Government Fire Prevention Grant to assist and support local authority housing departments.

It was agreed that the funding should ensure a genuine safety improvement, incentivise local authorities to install fire suppression and generate publicity for the fire authorities sprinkler strategy.

The part funding scheme was designed as a competition, launched in February, where LFB would provide funding to a maximum of 50% of the total cost.

Of the ten applications received, and following detailed analysis, five boroughs were successful and allocated various amounts of funding totalling £180,963.

There were various types of fire suppression proposed and consisted of large scale full building installations and individual domestic premises using personal protection systems (PPS).

All 5 Borough projects are still ongoing and are at various stages of completion.

This article is primarily focused at London Borough of Barking and Dagenham (LBBD) which has directed its attention toward their ‘extra care sheltered accommodation premises’ and have chosen to install full building fire sprinkler systems designed and installed to BS9251 within 4 separate buildings.

The first of the 4 premises reached completion recently and consists of:-

- 34 resident flats + 1 guest flat.
- common use rooms, such as communal lounge, wardens office, bin store room and atrium.
- flow switches were installed and connected to the current alarm system to be monitored by the warden whilst on duty and by an alarm receiving centre (ARC) during other times.

The installation company, BAFSA member Triangle Fire Systems Ltd, were able to route and fit the pipes within the ceiling voids, thus giving a better cosmetic finish and making an additional saving of £12,300. The total savings were £29,000 which LBBD can now use towards other sprinkler projects within the borough, such as fire suppression for a large number of their ‘bin chute/store rooms’.

Although the competition is still running, it is clear from the example provided by LBBD that the support provided by LFB and the allocated funds has proven to be a great partnership and confirmed success for all that are striving to improve home fire safety for the most vulnerable Londoners.
A manufacturing company in Tyne and Wear experienced a fire in a wall mounted process heater at their 5000 m² single storey factory. One sprinkler activated and successfully suppressed and extinguished the fire. In addition, the sprinkler cooled 2 barrels of solvent which had the potential to further fuel the fire. The intervention of the sprinkler system kept the total damage to under 10% of the building and no injuries were reported.

“This incident and others more often related to arson fires, demonstrates why toilets and lavatories should be sprinkler protected”. BAFSA

A single sprinkler head activated in a lavatory in a shop unit in the Lanes Shopping Centre when a fire started in a defective extractor fan which had been left running after business hours. The fire was contained to the toilet. The FRS attended when the flow switch operated the AFD system, but the fire had been extinguished by the head.

“This incident and others more often related to arson fires, demonstrates why toilets and lavatories should be sprinkler protected”. BAFSA

Staff responded quickly and operated the machine’s fire suppression system which controlled and extinguished the fire. London Fire Brigade crews attended, gained access to the machine and spent a few hours dampening down and turning over.

London Fire Brigade Station Manager, Bruce Grain

Three sprinkler heads activated when a fire occurred in a pile of about 110 tonnes of material in a 100m x 120m building at a textile recycling plant in Bilston.

From his post fire inspection Dave Marsh, Fire Safety Officer with West Midlands FS, noted that the sprinklers had controlled the fire, limiting the damage to a couple of tonnes of textile ready for recycling. Crews damped down the fire whilst utilising some on-site machinery to dig the pile out.

While the building was occupied by about 100 students, a fire occurred in a waste bin in a second floor toilet area at a sixth form college. One pendant sprinkler head activated and extinguished the fire before the arrival of fire service personnel in two pumps and one aerial appliance.

Noel Cornforth at Cleveland Fire Brigade said “without sprinkler intervention the fire could have spread to cause significant damage to the fire floor, interrupting the day to day function at the college”.

“Yet another fire starting in a lavatory demonstrates the value of sprinklers in all spaces in a protected building. Whether it was deliberate or accidental disposal of smoking materials, there are many examples of fires starting in lavatories in shopping centres and schools”. BAFSA
21st/22nd - retail unit: Nottingham
At a retail unit within East Midlands Airport a fire occurred in a store room which appeared to have started in an extractor fan within the store room but was extinguished by the operation of two sprinkler heads close to the seat of the fire. Fire damage was confined to the area immediately around the seat of the fire.

“Companies very rarely recover from a fire such as this, but the sprinkler system did its job and minimised the impact on the rest of the building, containing the flames to one area”. Keith Brooks, Head of Protection and Prevention, Cheshire FRS

23rd - paper mill: Flint, North Wales
A fire occurred on the production line which produces laminated plastic and paper within a 50,000m² breeze-block and sheet metal construction building on a major paper manufacturing site.

The heat from the fire set off two sprinkler heads on the wet pipe system in the fully sprinklered premises and the staff assisted to put out the fire with extinguishers. The attending fire crews from North Wales FRS reported the fire to be OOA (out on arrival).

June

9th - Hostel: Brighton & Hove
A fire (reportedly deliberate) on the second floor of a hostel for vulnerable people, was extinguished by a sprinkler system at Glenwood Lodge Hostel during a busy night for Brighton firefighters.

11th - Retail Unit: King’s Cross Station, London
LFB responded to an AFD to find smoke issuing from a retail unit within the concourse area. Some 5000 – 8000 people were evacuated uninjured and trains were put on caution. After investigation crews found a fire damaged air conditioning unit with a sprinkler head directly above the unit which had actuated and fully extinguished the fire.

21st - flats: Motherwell
Three pumping appliances were mobilised to a fire occurred in a kitchen on the fourth floor of a five storey block of flats housing homeless persons. Two breathing apparatus wearers were committed to ventilate but no fire-fighting action was recorded as the fire had been doused by the block’s sprinkler system.

23rd - Factory: Winsford, Cheshire
Eight fire crews were sent to a fire at the Mitras factory on Road One, Winsford Industrial Estate. Firefighters in BA worked inside the building to detect and extinguish the flames, which went from the machine and up through ducting affecting the roof.

Keith Brooks, Head of Protection and Prevention, Cheshire FRS said: “This factory contained highly flammable products which, if a fire had got to them, could have been disastrous. Thankfully, a sprinkler system contained the flames”.

Mitrats Managing Director Andrew Goodier is feeling the benefits of having sprinklers. He said: “Whilst manufacturing has been paused for one week, without the sprinkler system we’d be talking two years, if not longer. We are opening a new factory in Winsford very soon and have already fitted sprinklers as standard”.

“I would encourage anyone in the manufacturing industry who doesn’t have sprinklers to think very carefully about what they would do in a situation like this, and how their business would survive a fire”. Andrew Goodier, Managing Director, Mitrats

A fire involving machinery at Jiffy Packaging, also on the Winsford Industrial Estate, was kept confined thanks to a sprinkler system. The systems which saved these two premises is a fixed pipe sprinkler system which runs through the premises, protecting the manufacturing areas.

“Companies very rarely recover from a fire such as this, but the sprinkler system did its job and minimised the impact on the rest of the building, containing the flames to one area”. Keith Brooks, Head of Protection and Prevention, Cheshire FRS

28th - Factory: Livingstone
A fire occurred on the Brucefield Industrial estate in raw plastic material at a factory which recycles materials to produce high quality packaging. The Scottish FRS mobilised three pumping appliances and on arrival found that one mains fed pendant sprinkler head had suppressed the fire and prevented it from spreading.
The fire was out in 30 minutes from the arrival of the fire crews.

July

7th - recycling: Warrington, Cheshire
An over-heated conveyor belt caused a fire at Shred-It on the Barleycastle Trading Estate. The damage at the Appleton shredding company was dramatically reduced thanks to them having a deluge system installed in the machinery. [a deluge system is a type of sprinkler system where all the heads open simultaneously]. Four fire engines, three from Cheshire FRS and one from Greater Manchester FRS attended and firefighters, two wearing BA, isolated the electricity supply to the machinery unit and used a hose reel jet to make sure the fire was completely out.

Keith Brooks, Head of Protection and Prevention at Cheshire FRS said: “As a Service we are very proactive in the promotion of sprinkler systems as they drastically reduce the damage caused by a fire and therefore minimise the disruption and time taken to achieve business continuity.”

In addition to the deluge system, the company has a conventional sprinkler system installed across the building which is an additional safeguard.
370 homes completed

Sheffield Council retrofit continues a pace with 370 of the 540 homes completed. After initial reticence from residents the approach taken by the council and main contractors Morgan Sindall with support from South Yorkshire FRS has allayed any fears the residents might have had. In fact the opposite is now the case, as the majority of residents welcome the upgrade in their safety. This project followed another ground breaking initiative in Sheffield, Callow Mount, and the council used the experience from its Callow Mount pilot to great advantage when they decided to retrofit sprinklers in 540 low-rise, timber frame, ranch-style maisonettes. The £1.4m, one-year works are due to finish in October.

"I think £2,500 a dwelling is money well spent to actually improve the safety of our tenants and residents living in a non-traditional building where we hadn’t before been able to do all the works to provide a safe means of escape", says Janet Sharpe, director of housing at Sheffield Council. "It’s a significant amount of money but if we tried to retrofit lots of different fire safety measures, it probably would have equalled that cost". Ms Sharpe says there is a clear business case for sprinklers: the council once spent between £10,000 and £15,000 renovating a home following a fire, and also faced the costs of moving and re-homing the affected tenants.

Wales

BAFSA gets its own Welsh dragon

Ritchie O’Connell who is currently a technical fire safety officer with responsibility for fire engineering and suppression with the South Wales Fire Service has joined the BAFSA team primarily to support the Association in Wales.

His pet hate, it turns out, is writing a pen picture of himself! However Steve Seaber and Keith MacGillivray kindly (?) offered to do this for him at which point Ritchie saw the wisdom in doing so for himself.

"I am delighted to be joining the BAFSA team at such an exciting time for sprinklers in Wales. Little did I know when I wrote a dissertation many years ago regarding the benefits of mandating for the installation domestic sprinklers that I would see it becoming a reality! I have been married to Anne for 28 years and we have two children, Liam 18 who is shortly starting university and Caitlin who is 15 and has a black belt in shopping. I look forward to meeting and working with all BAFSA members both old and new".

Retrofitting in social housing

Registered Social Landlords (RSLs) in Wales, are leading the way ahead of the implementation of the second part of the Domestic Fire Safety (Wales) Regulations 2013. Whilst the second part of these regulations will make mandatory the installation of sprinklers in new and converted houses and flats (including sheltered houses and flats) from the first of January 2016. RSLs have realised that there are significant benefits to retrofitting sprinklers into existing housing stock. They have identified not only improved safety for
their tenants, but the sound business case which comes from protecting their housing stock with sprinklers.

Approved Documents and householder guidance

The Welsh government intends to publish householder guidance ahead of the January 2016 implementation of the Welsh Sprinkler regulations. The guidance will address some of the common sprinkler myths and misconceptions and provide advice on the maintenance of sprinkler systems. Approved Document B Volume 1 (Wales) will be published online in the autumn of this year providing advice and guidance on meeting the requirements of The Building Regulations and Domestic Fire Safety (Wales) Regulations 2013.

Scotland

Cross party support for wider use of sprinkler systems

There was a short debate in the Scottish Parliament of 21st May in which Clare Adamson MSP, the Convenor of the Cross Party Group on Accident Prevention and Safety Awareness, praised the efforts of the Sprinkler Coordination Group and widely quoted from BAFSA’s work on the Gallow Mount Project. She concluded by saying: “Retrofitting sprinklers as part of a major refurbishment project to meet current building standards can be done reasonably and without major disruption. I hope that the message of retrofitting is fully understood and that raising awareness of retrofitting may prompt action to ensure that the use of sprinklers, as the very best form of preventative fire protection, can be extended to the whole community in Scotland.”

Ms Adamson’s motion was supported by speakers from all three parties and the Minister for Community Safety and Legal Affairs, Mr Paul Whitehouse MSP wound up the debate by promising to consider wider use of sprinklers, including targeting these at those most at risk and the Government would inform the Parliament of the results of research being undertaken to inform this decision.

The debate was followed by a reception hosted by Clare Adamson and sponsored by BAFSA which was attended by MSP’s, Scottish Fire Service officers, sprinkler end users from the care home sector and BAFSA members, as well as members of the Sprinkler Coordination Group.

Research project

During 2014, the Scottish Building Standards Division awarded a research project to Optimal Economics Ltd. This research project provided a cost-benefit analysis of installing sprinklers in houses, flats, houses in multiple occupation and student halls of residence. The final report was published in May 2015 and can be accessed through the Scottish Government portal by the following link: www.gov.scot/Resource/0047/00477895.pdf

The author of the report, Peter Wood MA, Director of Optimal Economics will be giving a presentation on the research project at our forthcoming Scottish Engagement Seminar on 17th September at Scottish Fire and Rescue Training Centre near Glasgow.

NFSN

A successful meeting

Buckinghamshire FRS hosted the July NFSN Members’ meeting in Aylesbury in a fully air-conditioned conference space which was very welcome on the hottest day of the year.

Julian Parsons, Head of Service Development, Bucks FRS welcomed the meeting and highlighted that we live in a society where most, including those in ‘government’ only look at the short term, whereas sprinkler protection needs to be considered as a long term investment in people and infrastructure.

Ronnie King, Honorary Secretary to the APPSFRG advised that one of the main focus points of the Group is to help revive the impetus for fitting sprinklers into new schools which has reduced in recent years from 70% to 35% and Nigel Chantler from Triangle Fire Systems gave a thought provoking presentation about over-specification, beyond the scope of BS9251.

Members’ reported the fitting of sprinklers in many sectors across the country and Norfolk FRS announced it has brokered an agreement that all new build schools in Norfolk will have sprinklers fitted.

The importance of sharing “sprinkler saves” was also highlighted. Contact the NFSN Secretary, Steve Mills, at nfsn@btconnect.com for more information.

Skills & Development

Webpage Launch

BAFSA has launched a new webpage – Skills & Qualifications - with a new logo created for use on certificates and training materials associated with qualifications. The webpage includes a members and a non-members sector and strategies, specifications and qualification information will also be available from it.

The email address, Qualifications@BAFSA.org.uk, will allow correspondence in respect of this subject with emails in the first instance being monitored by Ruth Oliver, Skills & Qualifications Technical Adviser.

BAFSA / IQ Skills Card

Working in conjunction with IQ, BAFSA’s preferred Awarding Organisation, the potential of a ‘Skills Card’ being awarded on achievement of the new Level 2 qualification, Certificate in Fire Sprinkler Installation is being explored. It is envisaged the IQ Skills Card could be linked to LinkedIn and Twitter accounts. Email addresses, address, phone number and website details can be stored to provide a simple, effective CV summary in addition to providing information about their verified skills.
Sprinkler Tank Sales

George Atkinson – European Sales Manager for Fire Protection is now responsible for all direct CST Industries (UK) Ltd Vulcan Tank sales including supporting their exclusive agent in the fire sprinkler market.

George has worked in fire protection tank sales for the last 4 years and has been with CST for 1 year.

A growing team

AF Sprinklers continues to grow its team with 5 new starters and 2 engineers passing their LPCB competency exams.

Accreditation

Fire Protection Services Ltd now complies with FIRAS Certification Scheme for contractors installing Residential and Domestic Sprinkler Systems.

A few words from new BAFSA member, Steve Walker of Hydrotech Fire & Mechanical

We are new to BAFSA and have been established since July 2014. I was aware that the sprinkler industry had been looking for a quality alternative supplier of Dry & Wet Riser products and now, just one year on, we are close to being the largest supplier in the UK within this category.

With over £1 million of sales orders in year one through our distributors which include Shawston, Rapidrop & Tyco we are obviously doing something right. We have feedback from most major sprinkler companies that our products have been very well received. I firmly believe that our company has been able to add value to the industry that we are passionate about.
On the move

Suffolk based Groundbreaker and Firebreaker Systems have moved offices. Their new address is 3, Fairways, The Common, Stuston, Nr Diss IP21 4AB

Going green

When AF Sprinklers moved to Gorells Way in Rochdale, the company embarked on a comprehensive “greening” of the premises. The offices have energy efficient lighting, high spec insulation, a bio mass boiler and a 50KW solar panel roof system will soon be installed in the warehouse and workshop facility.

Expansion into Ireland

Exova Warringtonfire has announced its latest expansion into Ireland, as part of its global growth strategy. The move will see the company provide fire engineering consultancy to help customers meet the Amended Building Control Regulations which came into force in March 2014. The changes to the Building Control Regulations relating to the commencement and certification of construction works arose from high profile failures during Ireland’s previous building boom, most notably Priory Hall in Dublin.

Fund raising

London to Paris

On 22nd July Thermotech Fire Protection father and son team, Dave and Aaron Prendergast cycled from London to Paris and raised £3000 for the wonderful charity Children’s Adventure Farm Trust which is based at the beautiful Booth Bank Farm, a 17th Century farmhouse set in the heart of the Cheshire countryside.

In memory of a good friend

James Goddard cycled the 90km London to Brighton race in with the aim of raising funds for The British Heart Foundation, in memory of a good friend who died tragically young last year, after suffering a heart attack. He not only survived the day but raised £1200.

Top 1%

A team of 12 from AF Sprinklers completed the Manchester 10k run on behalf of Prostate Cancer UK with the aim of raising £3000. In the end they were rewarded for their effort by raising £6700 and hitting the top 1% for Just Giving fundraising for May!

Viewpoint

Keith Rhodes of Nationwide Fire Sprinklers shares his thoughts on where the Residential and Domestic sector is going:

The current wider use of sprinklers in dwellings has its origins in work undertaken in the 1990’s by a number of farsighted chief fire officers supported by lobbying by industry groups. This section of the sprinkler industry has changed dramatically, from where sprinklers were only offered as a solution to a problem with statutory compliance during refurbishment and has developed to include significant demand for sprinklers in social housing, sheltered accommodation and residential care.

As the size and scope of projects has increased, so has the wider availability of technology and improved expertise in design and installation. The customer now gets a much better product at a lower cost and can buy with confidence.

The fire and rescue service have without doubt, been largely responsible for the wider acceptance of sprinklers and the work of the National Fire Sprinkler Network is at the heart of this.

The revisions to BS 9251 have also been widely acclaimed as resolving issues installers had with the original BS9251, and the industry in general and BAFSA in particular has been worthwhile.

The R&D sector has also changed as new entrants appear - some prosper, some do not and we also find plumbing contractors now expressing an interest - many do not follow this up, finding the lower margins on offer unattractive!

While the market is expanding, there must be a finite number of loft conversions and ‘B-5’ installations but the BAFSA sponsored Callow Mount project certainly generated significant activity in social housing retrofits. This has been followed by increased interest across the country - currently there are major sprinkler projects underway in Sheffield, Tyne and Wear, London, Derbyshire, Fife and South Wales.

Retrofit applications are also taking place in residential care homes and while there are issues with costs, it is likely that we will see significant activity in this sector in Scotland after the next review of Scottish Building Standards takes place. The care market is already buoyant in Wales and the full implementation of the new requirements in January 2016 will also increase the demand for R&D sprinklers.

New build homes and high rise (including student accommodation) inside the M25 is also flourishing with plenty of opportunities for contractors large enough to handle the project - and the contractual relationships with those demanding main contractors!!

Lead times for some sprinkler contractors have been increasing bringing new frustrations to clients and main contractors, and where a is builder late placing orders it can be the case that cost becomes secondary to timescale.

Looking forward, our industry needs to support BAFSA’s work in developing industry qualifications - this is the only way we can ensure that the skill shortages we are all experiencing can be satisfied. We should be driving towards having at least the lead engineer on every site properly qualified so that where site modifications are required these are done competently.
New version of MagiCAD Sprinkler Designer released

Progman Oy, one of Europe’s leading HVAC and electrical design software providers, has released a new version of the MagiCAD Sprinkler Designer MEP software for AutoCAD and Revit. MagiCAD Sprinkler Designer combines world-leading MEP BIM and 3D drawing capabilities with a built-in sprinkler calculation engine, enabling comprehensive, standards-compliant sprinkler design and calculations on top of AutoCAD and Revit.

MagiCAD Sprinkler Designer fully integrates within the AutoCAD and Revit software environments and allows sprinkler design with synchronised wire-frame, 2D and 3D isometric views using split screen. The available calculations include calculation of required system pressure based on the hydraulically most remote area, actual flow density for each sprinkler head, friction losses using the Darcy-Weisbach method, average flow density at the four weakest sprinkler heads, and much more.

In addition to this, the weakest sprinkler head and the operating point on the pump curve are identified.

MagiCAD Sprinkler Designer supports the BS 9251:2014, BS EN 12845:2009, NFPA 13, and CEA 4001 standards, and offers easy and fast functions for bills of materials, collision control and sections. MagiCAD Sprinkler Designer comes with equivalent length tables for CPVC, copper and steel in accordance with BS 9251:2014, and a comprehensive set of data for calculations, quality control and design approvals.

magicad.com

SprinklerSense reduces risk of failures

Tyco UK and ADT have launched SprinklerSense, an intelligent sprinkler monitoring and maintenance system. By utilising solid-state sensors instead of traditional mechanical flow switches, SprinklerSense significantly reduces the risk of failures. Suitable for both new and retrofit scenarios, SprinklerSense provides organisations and facilities management providers with a new and effective approach to the management, monitoring, testing and recording of the water flow of sprinkler systems. It is LPCB approved and offers insurance and authority compliance.

The compact and lightweight SprinklerSense system only requires a single hole for fixing, and uses less pipework than traditional systems and the ability to test the system remotely at ground level also reduces the need for contractors to be working at height — improving health and safety conditions during the installation process.

The system can also help an organisation to lower its environmental impact with no drainage required for the system testing and the ability to identify slow leaks.

Finally, helping to enhance safety on site, SprinklerSense can be connected to an MX fire detection control panel, which enables the system to be fully monitored.

tycofis.co.uk / adt.co.uk

Concealed quick response horizontal sidewall sprinklers from Reliable

The G6-56, G6-80 and the RFS42 are all flat plate concealed horizontal sidewall sprinklers, available in a variety of colours and/or styles designed with a solder link for a quick response.

The G6-56 is designed for light and ordinary hazard applications- UL Listed, rated to 175 PSI, push-on/pull-off cover plate-solid or perforated (view bulletin 047 on website for details).

The G6-80 is designed for light hazard quick response extended coverage applications- UL Listed, rated to 175 PSI, push-on/pull-off cover plate-solid or perforated (view bulletin 048 on website for details).

The RFS42 is a residential flat plate concealed horizontal sidewall sprinkler available in a white variety of colours and styles, UL listed, push-on/pull-off cover plate-solid or perforated (view bulletin 048 on website for details).

reliablesprinkler.com
Wholesale chain, Makro, tasked BAFSA members Hall Fire Systems and Balmoral Tanks to decommission and install a new sprinkler water storage tank over a seven day period in June 2015 at its site in Washington, Newcastle.

Following a detailed survey by trained installers, Balmoral identified performance issues relating to the delivery of a long-term, cost effective reliable water supply. The existing tank had provided 25 years’ service since installation in the 1990s.

Given the overall poor condition of the system, the sprinkler water supply tank had to be replaced as it had reached the end of its useful life. The survey highlighted two areas of concern, the base and installation access.

The mastic tank had already undergone maintenance and repair seeing a new liner installed and an external paint coating while a number of base and side sheets had been plugged. The tank was located in a confined space which required the use of a ‘Hiab’ with an 18m reach to navigate around the 1.7m high wall surrounding the service yard. The base required remedial work to secure the new tank using angle mounts rather than the previous method of concrete seal pour.

Balmoral was responsible for fully dismantling the existing tank before completing the refurbishment project by designing, supplying and installing a new cylindrical fire tank. The decommissioning process began with principle contractor Hall Fire preparing the site by draining the tank, removing existing pipework and ensuring the silt and sludge build-up was removed by a licensed waste carrier.

The three day decommissioning process involved the removal of each panel until the roof had been lowered to ground level before safely removing the covers and supports. A slightly larger 215m³ capacity tank with increased height and reduced diameter was designed to suit the confined space utilising a PVC liner and the number of inlets was reduced from three to one.

The total erection time for the new LCPB-approved tank was four days excluding commissioning.

While maintenance and repairs can prolong the life of a fire tank the replacement of a cylindrical, or any type of tank, can be achieved without service interruption when professionally planned.

Balmoral Tanks’ expert team, from enquiry to project management, inspection and maintenance to installation and commissioning, is highly experienced and is ideally placed to help with your replacement or refurbishment programme.
Living With Sprinklers

A new BAFSA publication, BIF 27: A Guide for Owners and Occupiers summarises the main obligations imposed on the owner or occupier of a building or structure which is fitted with a sprinkler system. The advice given also holds true for watermist systems.

Home owners or those living in houses or flats which are protected by sprinkler systems are unlikely even to notice them. Owners or occupiers of industrial premises need to take routine steps to ensure that their sprinkler protection is always available to control or suppress any fire which might occur.

Once a sprinkler system has been handed over to its owners, the responsibility for the equipment will rest with them. Whether or not the system will operate as designed will depend on whether the correct maintenance procedures are being carried out. UK legislation imposes significant liabilities on employers and/or commercial and industrial property owners who fail to maintain fire safety equipment intended for the protection of life from fire.¹

Sprinkler System Maintenance

In the UK, sprinklers in non-residential premises should be designed, installed and maintained in accordance with BS EN 12845. Some systems may be installed to other international standards or to those specified by FM Global. Section 20 of BS EN 12845 (which is due to be revised in mid 2015) specifies maintenance requirements.

Where sprinkler are installed to meet insurance company requirements then additional rules apply in the form of the Technical Bulletins of the LPC Rules for Automatic Sprinkler Installations.²

BIF 27 also emphasises the need for documentation of the testing and servicing and pays particular attention to the need to have in place procedures to be implemented in the event of a shutdown of the system.

System Non Availability

There is a summary of suggested actions to be taken in the event that a sprinkler system will be impaired for any significant period - say for more than one hour and in the event of an impairment, the insured must:

1. Advise the local fire and rescue service; and
2. Inform the insurers.

Other actions which can usefully be taken in the event of planned or unplanned shutdowns are also in the BIF along with detailed advice as to how to minimise water damage.

In larger premises the maintenance and security personnel should be trained to understand how the sprinkler system operates and how to take action in the event that a sprinkler head operates following mechanical damage.

BAFSA advises that occupiers of sprinklered homes should also be aware of how the system works and what to do in the case of faults or actuations and to assist with this recommends that the installer should have provided a logbook³ including a 24 hour emergency contact number which can be used to obtain assistance. Knowledge of where the sprinkler system shut-off valve is vital as it will enable fire fighters to shut the system down once they are sure that the fire has been extinguished.

The BIF also highlights some everyday domestic actions which may compromise the operation of the system:

• Do not paint the sprinkler heads and/or their cover plates
• Do not hang anything on the sprinkler heads
• Make sure neither furniture or ornaments shield the sprinkler heads or obstruct the flow of water.

It is stressed that no modification should be made to any sprinkler equipment except in accordance with BS9251:2014 or any other standard utilised and that reinstatement of the system should only be undertaken by a competent person and the log book annotated to indicate the reason for reinstatement and any actions taken.

¹. Article 17, Fire Safety Order 2005. Scotland and Northern Ireland regulations have similar requirements.
². Or in the case of insurer FM Global, their data sheets.
³. If you can’t locate this ask your house builder or landlord or contact the installer whose name and phone number should be on a tag near the system’s controls.
### bafsa dates for your diary

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“being a blindfolded sheep was so funny and something I will remember for a long time”

Andy Cable of Armstrong Priestley
BAFSA Challenge Day proves to be a big hit

With the sun shining and no sign of rain, the BAFSA Golf & Challenge Day 2016 began with 26 golfers lining up to tee off every 9 minutes from 0812. Fortified by Bacon Rolls and coffee (and a Mars bar in their goodie bags) 7 teams “drove off” (and there were actually some driving buggies) the first tee.

During the morning sponsors of the day put up banners and supported their teams. Applications Engineering were out on the golf course whilst Vipond and Hall Fire discussed strategy for the challenge ahead. By midday, the first of the Challengers arrived to meet fellow team members and enthusiastically discuss team tactics. By late lunchtime the golfers joined the throng, telling tales of success and failure. One even quoting that he had played the best round of golf since he was 17...probably a very long time ago!

With 6 teams of 8 created, and a safety briefing delivered by the Off Limits team who had built a series of activity areas, bounded by colourful bunting, competitors set off to face their first challenge. Laughter rose from the competition ground as the first blindfolded sheepherding activity commenced.

Soon the crack of pistols and 12 bore shot guns filled the air whilst budding Robin Hoods endeavoured to hit the target. Much scratching of heads was seen not only over the general knowledge quiz tables but also during the building of the trebuchet.

By the end of the afternoon the Golf pro had delivered the results of the morning’s Golf competition and the BAFSA trophy would have a new name engraved on it. James Goddard and Chris Cocklin of Application Engineering along with Adam Moroney of Victaulic were the team champions but Andy Cable of Armstrong Priestley was the clear individual winner. Andy also won the “Nearest the Pin trophy. With Colin Taylor of Domestic Sprinklers playing the longest drive to secure that trophy. It was later noted that Peter Fetcher of Hall & Kay recorded the lowest number of points and was belatedly awarded a trophy to reflect this status...a man holding a cricket bat and ball.

The tension was building as answers to the quiz, which was created by Stewart Kidd, were given and many mutterings of “oh well we certainly got that wrong” were interspersed with notes of triumph. The successful quizzers were the K-Factor team (sponsored by Vipond).

Winning and losing was not the only message of the day. Bottles of champagne were awarded for the Outstanding Shot: Rebecca of Hall’s Angels (sponsored by Hall Fire Protection); most enthusiastic competitor Sylvester of Domestic Sprinklers and never to be forgotten, best Shepherd, David of Valve, Set & Match (sponsored by Applications Engineering). Three challenges were medal winning activities and the Sprinkler Good Guys’ (sponsored by BAFSA) own Robin Hood Keith won the Archery whilst John of Valve Set & Match with the Clay after a shoot off. The Pistol shooting was won by Paul of Hackers & Knights.

After all the scores and points had been added up, checked and double checked it was time to announce that Valve Set & Match were the winners of the inaugural BAFSA Challenge Day.

Trophies, champagne medals and other awards complete, everyone was invited to take a goodie bag home which contained polo shirts and other momentoes of the day. With the sun setting over the deer in the beautiful parkland which surround the Forest of Arden Marriott, competitors enjoyed a scrumptious barbecue and shared tales of success and fun.

All of 48 of the Challengers, plus the Chairman and the BAFSA Executive, enthusiastically supported the idea of a BAFSA Golf and Challenge for 2016 so watch this space!

“an excellent Challenge Day. The day went very well and was well received by everyone I spoke to”  
Keith MacGillivray,  
Sprinklers Scotland