

## Sprinklers in Wales: an excellent result

It took almost four years from start to achievement, but the outcome – see what follows – reflects enormous credit on Ann Jones AM (in a former life a fire control operator) and her determination to see sprinklers fitted in new dwellings in Wales.

In 2007 the North Wales Fire Service produced a report which showed that, in their area alone in a period of six years, and in dwellings which were fitted with smoke detectors, 50 people had died in fires. That rate was substantially more than the average across all UK F&RS areas and indicated that something more than smoke detectors was called for.

Member of the Welsh Assembly Ann Jones represents the Vale of Clwyd and was once a fire control officer in Merseyside. Ann was given an opportunity in June 2007 to submit a proposal for an item of backbench legislation – a Legislative Control Order (LCO) – which would aim to have all new dwellings in Wales fitted with automatic sprinklers. An LCO would not change existing law but, if approved, would give the Welsh Assembly the power to do so using an Assembly Measure.

Following the submission of the draft LCO to the Assembly the proposed Assembly Measure went through a series of Scrutiny Meetings, at which it was examined in detail by a very wide range of interested organisations. At last, on 16 February 2011, after four stages of amendments, and by a unanimous vote, the Welsh Assembly approved the Measure (which bears the title ‘The Domestic Fire Safety (Wales) Measure’). It went before the Privy Council on 7 April 2011, obtained the Royal Seal and, now, Regulations must be introduced to give practical effect to the Measure.

Ann Jones is now completely confident that such Regulations will appear soon. All new living accommodation – including houses and flats – in Wales must thereafter incorporate a sprinkler system. And the death rate in dwellings evidenced in the earlier report will, in future, be reduced as a result. Well done, Ann Jones AM! ♦



Ann Jones AM



Ronnie King of NFSN chats with Nick Clegg on the BSA stand

## BSA at the LibDem Spring conference

The Business Sprinkler Alliance (BSA), of which BAFSA is a founder member, hosted a display stand at the LibDems’ Spring conference in Sheffield to help reinforce the message about sprinklers’ benefits to many of the decision-makers in attendance.

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## BSA at the LibDem Spring conference

Andrew Turner of EPPA UK reports that the stand staff were speaking with people non-stop, including conversations with many elected members of local authorities and a number of MPs, including Nick Clegg and also Building Regulations Minister Andrew Stunell. The basic message was:

- ❖ government debate on fire protection for commercial buildings must take account of the economic, environmental and community costs of fire; and
- ❖ government has a duty to act because the cost of fires is too high.

Andrew Turner says that the message was overwhelmingly accepted. Importantly it has been delivered to the Minister concerned, who is now clear what BSA is doing. Sounds like a result for sprinklers! ❖

## Sprinklers in Sweden

Recent information from Sweden, via Alan Brinson of EFSN, shows a steady rise in the installation of sprinkler heads over the 30 years 1980 to 2010. In the 1980s the rate of fitting was approximately 125,000 per annum; in the 1990s that rate had risen to approximately 207,000pa, and in the 10 years from 2000 it was about 357,000pa.

The figure for 2009 was 442,250, of which residential sprinklers were 20,000, about 4.5% of the total. In 2010 the total was 363,681, a drop of 18% compared to 2009, but the number of residential heads fitted in 2010 was 23,500, 6.5% of the reduced total but 17.5% up on residential total for 2009. Across the decades there has been steady growth. The fall back for 2010 is attributed to general financial uncertainties in Sweden/Europe. ❖

## Competent person and maintenance

### *A cautionary tale for those who maintain fire protection equipment*

In what is thought to be the first case of its kind, a fire system contractor has been convicted under the Regulatory Reform (Fire Safety) Order 2005, following a fire in Altrincham, Manchester in which a woman died. Christopher Morris, 56, appeared at Manchester Crown Court in December 2010 and was fined £5000 and ordered to pay £6000 costs. Mr Morris had earlier pleaded guilty at Trafford Magistrates' Court to two charges of failing to maintain a fire detection and alarm system at a care home in Trafford, Greater Manchester, and failing to inform the owners of the deficiencies in the system.

During subsequent investigations fire safety enforcement officers commissioned an expert examination of the alarm system which revealed:

- ❖ a blown fuse overridden with wire;
- ❖ an electronic component had been suspended between two terminal blocks instead of being attached to the circuit board;
- ❖ an alarm silence/fault warning buzzer was missing from the circuit board;
- ❖ the fault warning light on the front face of the panel had been almost

completely covered by paint.

The terms of the 2005 Order enabled Greater Manchester Fire and Rescue Authority to prosecute Mr Morris. He was deemed to have responsibility for maintaining fire equipment in a particular premises, a job that called for specialist knowledge or skills to carry out repairs, and had failed to do so. Greater Manchester F&RS's DCFO Jim Owen said that the successful prosecution would send a clear message to the fire industry that Fire and Rescue Authorities in England and Wales would not hesitate to take such action against anyone who fell short of their obligations under fire legislation. While many owners of premises have been prosecuted under the Order, this is thought to be the first time that a Fire and Rescue Authority has prosecuted a fire protection company employed by the owner of a property.

The Association for Specialist Fire Protection has recently issued an Advisory Notice on the general subject of the 'competent person' and strongly recommends the use of third-party-certificated contractors in its specialist areas related to the installation of passive fire protection. Visit [www.asfp.org.uk](http://www.asfp.org.uk) to view the text of the Notice. ❖

### *Regulatory Reform Order and the competent person*

The Regulatory Reform consolidates a large number of earlier measures and places emphasis on the need for fire safety procedures in industrial and commercial premises where 5 or more persons work.

It places duties upon a to-be-designated 'responsible person' to organise fire safety procedures and associated equipment in a premises and it gives the responsible person the duty of appointing a 'competent person' (or persons) to play roles in that endeavour. Sprinkler installations qualify as fire protection equipment under the Order, Article 17 is dedicated to the topic of equipment maintenance and that:

*Where necessary in order to safeguard the safety of relevant persons the responsible person must ensure that the premises and any facilities, equipment and*

*devices provided in respect of the premises under this Order . . . are subject to a suitable system of maintenance and are maintained in an efficient state, in efficient working order and in good repair.*

As for the 'competent person', Article 18 stipulates that:

*18. (1) The responsible person must . . . appoint one or more competent persons to assist him in undertaking the preventive and protective measures.*

and

*18. (5) A person is to be regarded as competent for the purposes of this article where he has sufficient training and experience or knowledge and other qualities to enable him properly to assist in undertaking the preventive and protective measures. ❖*

## Lakanal House: second hearing

At a second pre-inquest hearing, held at Southwark Coroner's Court on 8 December 2010, it became clear that criminal charges were still a possibility. The Lakanal House fire in July 2009 killed six people and at the second inquest hearing replacement Coroner Judge Frances Kirkham was told by the Metropolitan Police that its report into the fire had been further delayed and was now due in mid-2011.

Meanwhile, Ronnie King, Vice Chairman of the National Fire Sprinkler Network, representing the Sprinkler Coordination Group at this Inquest Hearing, has submitted a lengthy Statement to the Coroner, urging the inquest to look seriously at the evidence from around the world, as to the life safety benefits which automatic fire suppression systems bring to fire safety standards, and to look at the findings from the retrofit Tower Block project being undertaken in Sheffield (see the update account on page 5). He concludes by making strong recommendations about the installation of automatic sprinklers in

residential blocks like Lakanal House.

Southwark Council's deputy leader Ian Wingfield said, 'We have written to the Coroner to let her know our concerns about the time the investigation is taking. While we understand this is a complex investigation, residents are very anxious to understand what caused this tragedy.' The anxiety expressed must have been all the greater when a second fire occurred in the adjacent block, Marie Curie House, on 2 December 2010. (Go to [www.info4fire.com](http://www.info4fire.com) and search for Marie Curie House to find a variety of news reports.)

The council – now run by Labour since a LibDem/Conservative coalition was ousted in May 2010 – declined to comment on the possibility of criminal charges. The building has been mothballed since the fire but the inquest granted lawyers representing bereaved families and Ronnie King (for the Sprinkler Coordination Group), permission to inspect the building for the first time.

## Tennessee rockers and O<sub>2</sub> fire

Just before Christmas 2010, Tennessee rockers the Kings of Leon (whose hits include *Sex on Fire* and *Pyro*) suffered a setback on their UK tour when a tour bus parked in a loading bay at London's O<sub>2</sub> arena caught fire just after 8.00am on 21 December.

The fire spread to another tour coach and London Fire Brigade deployed 60 firefighters to the scene in Greenwich. LFB station manager Sally Cartwright, who was at the scene, said that the crews had done a tremendous job in tackling the fire, especially given the levels of smoke generated. She revealed that the O<sub>2</sub>'s sprinkler system had activated successfully and had helped the firefighters to control the blaze quickly.

Six people were treated for smoke inhalation. Although the arena was undamaged the time lost to the incident caused postponement of the Kings of Leon concert and the band is planning to reschedule the missed performance for later in 2011. ❖

## Take care what your website says

The Advertising Standards Authority (ASA) is the independent regulator of advertisements across all media in the UK, in which role it operates independently of both the Government and the advertising industry. Since 1 March 2011 its online remit was extended to cover companies' and organisations' own marketing claims on their own websites and in other non-paid-for space which they control.

The UK Code of Non-broadcast Advertising, which includes rules to make sure advertisements do not mislead, harm or offend, will be applied to all UK-based company/organisation websites regardless of the sector or size of business or organisation. For general information about the ASA visit [www.asa.org.uk](http://www.asa.org.uk). ❖

## LFEPAs position statement on sprinklers

Following the speech by the Fire Minister at the Fire Rescue Conference 2010, in which it was stated that it was the Government's expectation that Fire and Rescue Services would promote sprinklers directly with the business community without more regulation if they consider them to be of benefit, the London Fire and Emergency Planning Authority produced a position statement on fire sprinklers.

The LFEPAs repeated its commitment to reducing the impact of fire on people, property and the environment and went on to say that in a number of circumstances there is still a need for a more regulated approach to be taken in some areas to protect certain types of buildings and to ensure the safety of occupants. Nevertheless, it acknowledged the

evidence that sprinklers and other forms of automatic fire suppression systems could be effective in the rapid suppression of fires and had an important role to play in achieving a range of benefits for both individuals and the community in general.

The report of the Head of Regulatory Fire Safety to the Community Safety Committee (CSC) contained, in Appendix A, a full position statement on sprinklers, their known benefits, and mention of the types of properties in which sprinkler installations could have the most impact and on which LFEPAs would concentrate its efforts to promote their installation. (Google the phrase 'LFEPAs position statement sprinklers' to find the CSC meeting report, 23 September 2010.) ❖

# Watermist and the UK Watermist Coordination Group

There continue to be key developments on the watermist scene. To recap, the release of DD 8458: *Fixed fire protection systems – Residential and domestic watermist systems: Part 1: Code of practice for design and installation* (in October 2010) was followed in February 2011 by DD 8489: *Fixed fire protection systems - Industrial and commercial watermist systems: Part 7: Tests and requirements for watermist systems for the protection of light hazard occupancies*. (See the article on page 7 for information about the five Parts of DD 8489 which have been published to date.)

In the interests of consistent communication and development, BAFSA and FIA are continuing to work together under the umbrella of the Watermist Coordination Group (WCG). Chaired by Simon Rooks, WCG is focusing on four primary areas during 2011:

- 1. Joint information publication covering watermist: BAFSA will publish it as a BIF and the FIA will publish it as an FIA Fact File but both documents will explain the basic principles of watermist, the relevant standards and the key elements of both high and low pressure watermist.**
- 2. Promotion of a third-party installer scheme.**
- 3. A series of educational seminars that will be run in May 2011 at International Firex and on 18 and 19 October 2011 in Hampton. The seminars are aimed at both the design and installation communities and also at end users, specifiers, building control interests and fire brigades. The seminar programme will cover:**
  - understanding the new British standards, how they are structured and what applications are covered;
  - the importance of third-party fire testing and certification;
  - how installers can demonstrate their supplier relationships and product and application approvals;
  - the new third-party installer scheme and what it might mean for BAFSA installers;
  - and, if the standards don't cover an application, then how to approach bespoke testing (in which connection, readers of *SF5* might go on to the general article, below, on tests and sprinkler system components and materials).

The seminar will include case studies on approaches to bespoke testing.
- 4. Development of a 'watermist guidance' document to help all parties understand how to approach watermist systems and their applications and how to ensure compliance with the relevant standards. ❖**

## BAFSA website: visits on the increase



The writer of this piece makes considerable use of fire industry and related websites. Bias aside, it can be said that the BAFSA website has two huge advantages over many other sites. It opens quickly and it is easy to navigate. So the latest annual statistics make interesting reading.

In the year ending 9 March 2011 almost 800,000 visits had been made to the BAFSA website, more than 2000 per day on average. There was no month dramatically more busy than the rest but an enormously encouraging trend is seen in the 6-month averages. There were approximately 61,100 visits per month in the period March-August 2010 but 69,300 per month in July 2010- February 2011, an increase of 15% in the second part of the year under survey.

'News' pages attract most visitors, about one out of every four people visiting those pages; the list of member companies is also one of the most popular targets, publications pages also feature strongly, while about 50% of visitors fall into the 'Other' category. So the website is clearly making an impact and – although the statistics do not show this – one assumes that many visitors are accessing the site regularly. Watch this space for next year's statistics. ❖

## Cost-benefit analysis of residential sprinklers: a reassessment

This project is being funded by CFOA and BAFSA and is being carried out by BRE Global with a range of organisations providing input. It involves a reassessment of the work undertaken in 2003/2004 and

published as the 2004 BRE/CLG report of the cost-effectiveness of residential sprinklers.

Initial investigation requires the accumulation on information and evidence from numerous sources,

to aid the updating of the 2004 document. A second phase of the project will be devoted to economic factors which may affect future attitudes to fire safety (and how it is achieved) in residential premises.

At the time of writing the third meeting of the Stakeholder Group is imminent, and *Sprinkler Focus* will report on outcomes/progress in its next issue. ❖

# Sheffield high rise project: retrofit update

**Our thanks to Steve Seaber for the following update information on this BAFSA-funded initiative, for which he is project manager.**

## Premises

The premises is one of six blocks. Callow Mount, Meersbrook, Sheffield was built in 1962 and has been extensively refurbished during 2010 and 2011. It is 13 storeys high with communal and management facilities on the ground floor. Each of the 12 residential floors contains four flats which open onto a common lobby. The lobby on each floor has two lift access doors and there are two staircases separated by fire-resisting doors. The block is unique from its neighbours in that it provides sheltered accommodation for more elderly residents but does not have 24-hour warden control.

## Water supplies

Callow Mount is served by a 90mm main and the four rising mains utilise two directly connected Lowara twin booster sets. The water supply, pressures and flows have been tested and are considered adequate for the system. Water Regulations approval has been given to the proposed design by Yorkshire Water.

## Consultation with residents

To date, two meetings have been held with residents to outline and update them on the project. They are broadly enthusiastic and will be kept informed on a regular basis. It is intended to fit the system to one of the vacant flats first, to allow residents to see how the installation will be carried out and what the finished system will look like. These vacant rooms will be available to residents who do not wish to remain in their own flats during installation. It is anticipated that a flat can be completed in one day.

## Contractual arrangements

Although formal approval was received from elected members in December 2010, the contract has taken some time to finalise. A meeting was held between the Chairman and Secretary General of BAFSA and representatives



of Sheffield Homes and Sheffield City Council on 28 March, to seek to resolve this. It was agreed that the most appropriate way forward was for BAFSA to be granted a licence to carry out the work and to appoint the Principal Contractor.

## Involvement of BAFSA companies

BAFSA Council has appointed Domestic Sprinklers Limited to act as Principal Contractor for the project. Their design work has been supported by Exova's Warringtonfire Certification and Roy Young. Final drawings and supporting documentation has also been submitted for approval to Peter Armstrong and Zurich Municipal.

As reported at the Conference in Newcastle, BAFSA members were to be asked to support the project and Simon Rooks has acted as coordinator for these contributions. Over 30

BAFSA members have agreed to provide support for the project either in the form of components, labour in kind or financial support. Companies who would still like to be involved should contact Simon Rooks.

## Further information

The Steering Group continues to meet on a regular basis and in addition to the above matters has agreed the media communications strategy and the outline framework for the final report. The project continues to attract significant interest within the fire protection industry in the UK and Europe and the US. At the recent Parliamentary Seminar, Baroness Hanham CBE, Parliamentary Under Secretary of State at the Department for Communities and Local Government, indicated that she was interested in the outcome and findings. ❖

# Tests and sprinkler system components/materials

**S**prinkler systems, wherever they may be, comprise a variety of components and materials in moderately complicated conjunction. Then, the effectiveness of any system relies on (1) its being designed/installed appropriately to protect the premises and (2) all components and materials performing without failure in the event of activation. That means that there must be absolute confidence in the performance of the components and materials. Which in turn means that they must have been successfully tested and certificated by independent bodies.

The UK Fire Test Study Group (FTSG), which mostly deals with matters affecting passive fire protection products, usefully distinguishes three categories of fire tests. A test which is based on the compliance requirements of a published national or international Standard, and comes with a full report on the test outcomes, they categorise as a **Standard test**. In what follows, the descriptions of two other kinds of tests are not verbatim FTSG.

Before that, it is worth stressing that the UK sprinkler industry is fortunate that there exist (a) Standards related to principal sprinkler system components and (b) organisations able independently to test and certificate such components. Examples of Standards are the current series of Parts of BS EN 12259, devoted to components for sprinkler and water spray systems, which was described in BAFSA's *Sprinkler Yearbook 2011/12* (pages 52/53). Other Parts of 12259 are still in preparation, relating to system components which may, however, be covered by general manufacturing

Standards but as yet may have no sprinkler-specific Standards. Those seeking components which may not be sprinkler-Standard-certificated may like to know about two other categories of test descriptions which may come their way.

An **ad-hoc test** is one which has been performed in the absence of a Standard's procedure for a particular component which may find its way into a sprinkler installation. Such a non-Standard test method may use some general principles of testing for effective operation/durability in the event of a fire (and the test method needs to be explained in any report assuring the use of the component) but a potential end user needs to understand that an ad-hoc test report needs careful scrutiny since the test method may not be related to use in a sprinkler system.

An **indicative test**, having been performed on a component or material, is usually described in a written (letter) report from the testing body, which may give the data resulting from the test but should not interpret the results against any classification requirements. It may cite the use of some test methodology from a relevant Standard but will probably go on to say that it did not establish full compliance with the Standard's requirements and that the information is supplied for the information only of the test sponsor. And that the information should not be used to demonstrate performance against the cited Standard nor compliance with a regulatory requirement. ❖



They don't make them like this any more...

## CEN Standard for oxygen reduction systems

Work is in hand on a Standard which will establish the technical specifications for the design, installation and maintenance of oxygen reduction systems. The safety levels of oxygen reduction systems which are designed to be compliant with the proposed Standard will be similar to those of extinguishing systems.

The systems will use nitrogen supply in buildings and industrial production plants for phased oxygen reduction in confined spaces. The Standard will not apply to systems that use watermist for oxygen reduction, nor to fire extinguishing systems using gaseous extinguishing agents. As well as requirements for a system and its components, the Standard will also cover structural specifications for the hazard area. ❖

## *Oxygen reduction and air inerting systems – a fire consultant's view*

Inert air, also referred to as hypoxic (reduced oxygen concentration) air, is air which has altered concentrations of its constituent gases. Typically, air has 78% nitrogen, 21% oxygen and a total of 1% of various other gases. In inert air the principal proportions are 83% nitrogen and 16% oxygen – it is safe to breathe (but perhaps not for extended periods) and prevents fire ignition in common materials. The development of inert air seems a promising method of fire prevention for certain premises' applications, including heritage buildings. Inert air prevents ignition of fire in common materials and initial smoke and fire spread. Storage rooms, laboratories and exhibitions may be protected, in space capacities ranging from small closets to large volumes. There is generally no requirement for pipes, nozzles or any other invasive installation of equipment in the protected rooms. The inert air is continuously generated on site and can be delivered via a building's air conditioning system or to air inlet ducts. Fully reversible mobile units may be located in a building's protected compartments. Unlike gas extinguishing systems there are no space requirements for storage reservoirs, and thus no reservoirs to run empty or require refilling.

There are however a range of potential challenges in implementing such systems, including energy costs, noise pollution from compressors, and legislative and employment difficulties that may prohibit their use in certain premises. For example, the US Federal Regulator, OSHA, prohibits the use of such systems in any location where persons may be present at any time. ❖

## Europe and residential sprinklers: prEN 12259-14

Notwithstanding the more than two years' worth of work leading to BS 9252 (above), CEN has agreed with a proposal for a new Work Item (an agreement to allocate resources to prepare a document) which could result in an R&D sprinkler components standard to sit alongside the other parts of EN 12259, to cover components for fixed firefighting systems. The CEN ballot paper to recruit approval or rejection of its proposal included (as one among other documents) the Scandinavian standard INSTA 900-2 as an option for consideration by the CEN Working Group. (As it happens, INSTA 900-2 is effectively a copy of the de facto US component standard for residential heads, UL 1626.)

BAFSA's Technical Committee debated this issue on 16 February 2011 and, while generally in favour of the CEN proposal for the Work Item, felt that DD 252 (or BS 9252, if ready) should also be considered. But at a meeting of BSI/FSH/18/2 on 23 February it was explained that any caveat accompanying an 'Agree' vote would not be considered by CEN.

The BAFSA representatives attending the committee that day decided that, to ensure that DD 252 was given proper consideration as a legitimate basis for any new CEN standard, it was necessary to vote against the proposed new Work Item. The majority of those attending the meeting agreed and the UK voted against the proposal.

However, since there was a majority of national votes in favour of the proposal, work is expected to start soon on this. It needs to be understood by all parties that if a CEN standard is produced, any 'competing' national standards must be withdrawn so it is inevitable that an equipment standard will be imposed on the UK – it is therefore essential that UK delegates on the new Work Item WG take steps to ensure that the standard is robust and technically acceptable to all parties – manufacturers, specifiers, regulators and installers.

As for timescales, since BS 9252 is expected to be published fairly soon, the UK's standard will to be available for use some long time before any CEN alternative sees the light of day. ❖

## Standard for services for fire safety or security systems

CEN/CENELEC reports a large majority in favour of creating a new Joint Project Group (JPG) to work on a new European Standard, 'Services for fire safety and security systems'. The purpose of the Standard would be to enhance customer confidence in the quality of fire safety and security systems and to promote the exchange of services in Europe, with all service providers operating on an equal footing. It is not the intention that there should be any interference with specific technical requirements and application standards relating to the distinct disciplines of fire and security systems. The agreed JPG, under CEN's leadership, is designated CEN/CLC TC4. BAFSA supports the formation of a 'water systems' group within the TC and this was proposed at a meeting on 8 April in Berlin. ❖

## BS DD 8489: Industrial and commercial watermist systems

BSI has recently published a first batch of five parts of BS DD 8489, which has the overall title *Fixed fire protection systems. Industrial and commercial watermist systems*.

The Parts are:

- Part 1: 2011: *Code of practice for design and installation*
- Part 4: 2011: *Tests and requirements for watermist systems for local applications involving flammable liquid fires*
- Part 5: 2011: *Tests and requirements for watermist systems for the protection of combustion turbines and machinery spaces with volumes up to and including 80m<sup>3</sup>*
- Part 6: 2011: *Tests and requirements for watermist systems for the protection of industrial oil cookers*
- Part 7: 2011: *Tests and requirements for watermist systems for the protection of low hazard occupancies*

For further information about availability visit [www.bsigroup.co.uk](http://www.bsigroup.co.uk), go to BSI Shop, and search for BS DD 8489. (And look back at *Sprinkler Focus* issue 4 for an explanation of the difference between a DD and a full Standard.) ❖

## BS 9252: system components for R&D occupancies

BSI's Technical Committee FSH/18/2 Working Group met in March 2011 to consider ultimate improvements in the conversion of DD 252 to a British Standard. The Working Group's task is close to completion. A number of final revisions were agreed and, the text and illustrations having been settled, the Working Group requested that the document be submitted for publication by BSI at the earliest possible date. ❖

## CEN TC/191/Working Group 5/TG3 – watermist systems

At the latest progress meeting in February 2011 the TG3 group expressed its wish to progress the watermist EN TS 14972: 2010 to a full EN Standard. There had been inconclusive discussion of fire test protocols, the basis of establishing design rules for an individual system. The agreed way forward was to work on a set of three documents:

- ❖ a design and installation EN Standard;
- ❖ a component EN Standard; and
- ❖ a technical report (TR) that will contain fire test protocols as separate parts.

Agreement was reached on the general approach to achieve the preparation of those documents, progress to be reviewed at the next meeting in October 2011. If this document is approved for issue as CEN TS 14972: 2011 then any competing or conflicting national standard will have to be withdrawn. ❖

# SPRINKLER STOPS

## Supermarket, Pudsey

26 March 2011

Hundreds of shoppers in this retail store were briefly evacuated when a fire, which started as an electrical fault on a forklift truck in the warehouse, spread to some nearby racking. Staff quickly raised the alarm and the store was immediately and efficiently evacuated. The store is a 4000m<sup>2</sup> building over two floors and two West Yorkshire F&RS pumping appliances were sent to the incident. On arrival firefighters found that a single sprinkler head had activated, controlling and containing the fire to a small area of under 20m<sup>2</sup>. Four firefighters wearing breathing apparatus extinguished the remains of the fire and ventilated the warehouse area. Damage was restricted to the immediate area of the fire and after about 90 minutes the store had re-opened and was trading again. Disruption to the busy weekend's trading was described as minimal.



## Centre for the homeless, Greenock

11 February 2011

A sprinkler system saved the lives of 30 people who were inside a homeless shelter when fire broke out. A chip pan fire started at 2.00am in the emergency accommodation wing of the Inverclyde Centre for the Homeless in Greenock but, thanks to the sprinklers, no lives were lost. Malcolm Nicolson (pictured), group commander at Greenock fire station said, 'This could have been very dangerous. It could easily have spread and escalated. The fire was extinguished before we arrived, thanks to the sprinklers.'

The sprinkler system was installed in 2009 during an overhaul of the council-run facility. Inverclyde councillor Joe McIlwee, Convener of the Health & Social Care Committee, said, 'This was definitely money well spent'.

It is often claimed that a sprinkler system cannot extinguish a fire in a domestic deep fat fryer. Here is another example where it has done exactly that. BAFSA members may recall that the Association's DVD 'Sprinklers for safer living' contains a description of a similar activation onto a chip pan fire in an HMO in Weymouth, the fire being extinguished before the brigade arrived.

## Supermarket, Plymouth

26 January 2011

A fire broke out in the café of a Tesco store in Plymouth on the evening of 26 January, following a fault with a kitchen refrigeration unit. Two fire crews were called to the site at 1.00am. Watch commander Dave Marsh said, 'The fire was harsh in and around the refrigerator unit and had gone up into the ceiling. Luckily, the store is fitted with a sprinkler system which minimised the spread. No-one was injured. The shop was closed at the time of the fire but there were around 20 members of staff stacking shelves and receiving goods', said watch commander Marsh. The Transit Way superstore was open the following day but a large section was cordoned off while staff undertook a clean-up operation.

## Retail premises, shopping centre, Peterborough

11 January 2011

A display of cards was deliberately ignited at lunchtime in the Clinton Cards shop at the Queensgate Shopping Centre in Peterborough, and hundreds of shoppers were evacuated. Four fire appliances were called to the incident but the fire had been quickly extinguished by the sprinkler system. Callum Faint, Dogsthorpe station manager, said, 'Our investigation is ongoing but it looks like it was a fire to a display stand. The sprinklers were very effective in containing it to the stand. There is a bit of water damage but that is a lot better than a burned out shopping centre. We arrived here at 1.08pm and two of our crew went in with breathing apparatus and a hose, but luckily the sprinklers had already done their job. One female employee from Clinton Cards was treated at the scene for smoke inhalation but did not need hospital treatment. Phil

Drinkwater, Queensgate's marketing director, said, 'Every shop has the same state-of-the-art sprinkler system and it was very successful in this case.' Police are searching for the arsonist.

## Bedroom fire, Studley Green, Wiltshire

6 January 2011

A house in Trowbridge escaped serious fire damage last week, thanks to its fire protection system. The Studley Green estate was the first housing development in Europe to be fitted with domestic sprinklers, following its rebuild in 1999. On Thursday, 6 January, sprinklers in a property in Kingswood Chase activated when fire broke out in a first floor bedroom. Two crews from Trowbridge fire station were called to the address at 6.38pm, but found the blaze had been extinguished by the sprinklers. As a result, the fire damage was minimal, and there was no risk to the house's occupants, who were downstairs at the time. Although the exact cause of the fire remains unclear, there were no suspicious circumstances.

## Plastics factory, Haverhill, Suffolk

January 2011

What could have been a very serious fire was averted thanks to a sprinkler system at a plastics factory in Suffolk. Two engines from Haverhill were called to Marchant Manufacturing after the building became heavily smoke logged. The fire had started in a recycling machine at the factory but firefighters were required to spend only 30 minutes at the scene, thanks to the sprinkler system. Pat Dacey, Suffolk Fire and Rescue's district manager for St Edmundsbury, said, 'The sprinkler head right over the machine actually contained the fire over one single machine. The sprinkler without doubt saved the whole factory'. ❖

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**BAFSA welcomes any news of sprinkler actuations – these are our best publicity material. Please send any information to: [stevemills@bafsa.org.uk](mailto:stevemills@bafsa.org.uk).**

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## BAFSA AGM 2010

The 2010 Annual General Meeting in Newcastle-on-Tyne on 17 November was preceded by an Extraordinary General Meeting at which new Articles of Association were approved. These include a requirement that all installer members of BAFSA must obtain third-party certification relating to their activities. Existing members would have 24 months to achieve that status, while new members would have 24 months from the date of joining, if not already so certificated.

After those items of EGM business, Chairman Peter Armstrong opened the AGM by reviewing the year's activities (full details in the Annual Report - available on the BAFSA website in the Publications section). He was pleased to inform members of the Association's record income in the year (of which 90% came from subscriptions). That income, backed by a prudent policy for reserves, had enabled BAFSA to play an increasingly effective role in promoting the greater and more efficient use of sprinkler and water-based firefighting systems. He went on to exemplify the importance of BAFSA's collaborative links with the National and European Fire Sprinkler Networks, which had been formalised in the establishment of the Sprinkler Coordination Group. Its founder organisations had been successful in recruiting other interested bodies to participate in an enlarged SCG.

He went on to mention that insurer FM Global had supported the formation of the Business Sprinkler Alliance (see also *Sprinkler Focus 4*), which focuses on the promotion of sprinkler use in industrial and commercial premises. BAFSA is providing some of the funding needed for research to promote the wider use of sprinklers in large single storey buildings and research on the environmental benefits of sprinklers.

The Chairman also described the wide range of the Association's involvement in matters like training seminars, conference attendances, fire industry events, publications and technical initiatives. Altogether it was evidence of an increased level of activity in what had been a very busy year. ❖



### BAFSA/IFE Technical Sprinkler Seminars

BAFSA recently funded a well-attended and well-received technical seminar. The first of three planned in association with the Institution of Fire Engineers was held at the Doubletree by Hilton Hotel in Milton Keynes on 24 February 2011.

IFE International President John Woodcock welcomed delegates, who came from a wide range of organisations, including fire authorities, local authorities and fire industry companies, to a programme of eight presentations which explored the technical, societal, economic and environmental aspects of sprinkler protection.

Speakers included Alan Brinson from the European Fire Sprinkler Network, Assistant Commissioner Steve Turek from London Fire Brigade and Alan MacPherson from FM Global insurers. Stewart Kidd and Ian Gough also spoke. ❖

## Steve Mills joins BAFSA

Steve Mills, formerly of West Midlands Fire Service, has been enlisted by BAFSA to help develop the existing good relations between the Association and the UK's fire and rescue services. As Fire Service Coordinator Steve's role will be to:

- ❖ provide technical and logistical support for fire services in respect of sprinkler matters;
- ❖ coordinate sprinkler stop information exchanges;
- ❖ encourage individual F&RSs to play an active role within BAFSA;
- ❖ support those F&RSs which appoint dedicated sprinkler 'advocates';
- ❖ act as a liaison person between the sprinkler industry and the F&RSs.



Before taking up this important post Steve, who was also recently appointed secretary of the NFSN, served as a BAFSA Council Member for three years. If you think Steve can help you can reach him via [stevemills@bafsa.org.uk](mailto:stevemills@bafsa.org.uk). ❖

### BAFSA Sprinkler Yearbook 2011/12

The most recent Yearbook was published in November 2010. Members are advised that, subject to availability, further copies may be obtained from the Headquarters office in Ely, although there may be a charge for postage for bulk copies. ❖

# BAFSA Technical Committee

At its meeting on 16 February 2011 the Technical Committee discussed a very wide range of topics, including:

1. **Items of interest which arose at a November 2010 meeting of the RISCA Active Group, attended by Martin Hartley for BAFSA.**
  2. **Matters arising in the most recent meeting of the Residential and Domestic Committee – among these it was noted that the latest amended draft of TGN No.1 was now available and TC Chairman Martin Hartley would circulate it to TC members for final review and approval.**
  3. **The Service and Maintenance Sub-committee discussed a number of topics related to concerns that insufficient emphasis is being placed, by authorities having jurisdiction (for example, building control interests, fire authorities, insurers etc), on the importance of regular and competent sprinkler maintenance.**
  4. **Among technical issues was the subject of CEN's consideration of amendments to EN 12845.**
- So many clause amendments are being proposed that, under CEN rules, it would be necessary for the whole document to be reviewed. BAFSA proposed to submit to BSI a broad description of aspects that would need to be looked at in the document in the course of any review/amendment process. CEN have now started the review process and, as a BAFSA representative, Martin Hartley will be attending the CEN meetings for BSI and, it is hoped, will secure the BAFSA view in future versions of EN 12845.**
5. **BIF No.9, Water Mist Systems (revision work). The TC are collaborating with the Water Mist Working Group to agree the final wording of the document before it is relayed to the BAFSA/FIA Joint Working Group.**
  6. **The Bio-Fuel Sub-committee are working in conjunction with Clarke UK Ltd and the UK fuel suppliers to ensure that the 100% hydrocarbon fuels which are required for approved diesel fire**

## BAFSA information files

A number of new BIFs were issued in October 2010:

BIF 10A: Sprinklers in car parks

BIF 20: Third party certification

BIF 21: Wet and dry risers

BIF 22: Biodiesel fuel and sprinkler pumps.

Any BIF can be downloaded from

[www.bafsa.org.uk/publications](http://www.bafsa.org.uk/publications).

A free single copy of any BIF will be provided on request. Multiple copies for use at conferences and seminars will also be provided free of charge subject to availability but a charge for postage may be imposed.

**pumps will continue to be readily available through a network of nationwide distributors.**

7. **The Technical Committee continue to work with Lubrizol to help them produce an installation guidance document to assist users and specifiers of CPVC pipe systems.**
8. **After the freeze-ups experienced over the Christmas 2010 period, the TC are looking to produce guidance for designers and installers of systems on how best to fulfill their obligations and reduce the risk of future freeze-ups. ❖**



## Don't try this at work

A BAFSA member – who shall be nameless – and a client (ditto) share an unhappy experience with a sprinkler tank. About two years ago, said member, after inspecting a storage tank (early 1980s vintage), advised the client that the tank's panels were showing signs of potential failure.

Subsequently, one panel on the tank ripped away without warning and the ensuing flood washed away the pumphouse. A potential (but declined) £80k investment in two

new tanks turned into a nightmare, with a plant unprotected for many weeks and also a king-sized insurance claim.

The member questions whether BS EN 12845 might usefully include a provision that any tank in a sprinkler installation should be replaced once it reaches its twentieth birthday. The BAFSA Service & Maintenance Sub-committee will be looking at this issue and may decide it would be appropriate to produce guidance for owners. ❖

To receive *Sprinkler Focus* by email please contact BAFSA at [info@bafsa.org.uk](mailto:info@bafsa.org.uk) and ask to be added to the subscriber list.

BAFSA is happy to receive suggestions for topics to be covered in future issues. Please make contact via [info@bafsa.org.uk](mailto:info@bafsa.org.uk).

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## Fire Sprinkler 2010

BAFSA's biennial conference in Newcastle-on-Tyne on 18 November 2010 surpassed the 2008 event in terms of revenue and attendance, a real achievement in a time of austerity. In addition to an excellent programme of presentations from a team of expert speakers (the proceedings now available from BAFSA on a PC-compatible memory stick), delegates also had the opportunity to speak to industry representatives who staffed 12 company exhibition stands, in the coffee lounge next to the conference hall.

Delegates, members and exhibitors will be interested to learn that BAFSA will be launching a new website, organised by Wendy Otway, [www.firesprinklerevents.com](http://www.firesprinklerevents.com), in the form of an on-line information and registration site for events organised by BAFSA. ❖

### *...and one fire that was not stopped*

A massive pharmaceutical warehouse in Corby, Northamptonshire, was destroyed by fire on 25 March 2011. The blaze was tackled by 100 firefighters from Northants F&RS and neighbouring brigades. A representative of the F&RS made the points that: 'Had sprinklers been installed, it is unlikely that the building would have become fully alight... Sprinklers would have helped limit the incident to a minor inconvenience and could have helped ensure business continuity at the premises'.

A colleague said that companies 'should consider not the cost of a sprinkler system but how it could stop a fire and how much it could save in the event of a fire.' Most of the 150 warehouse staff have not been able to return to work, although a skeleton staff is working off-site to liaise with customers. ❖

## BAFSA Events Programme 2011/2012

Date	Event	Venue
<b>2011</b>		
10 May (1330hr)	Marketing	UKWA, The Strand, London WC
17 May (1300hr)	Council	Hotel Rex, Weymouth,
18 May (0900hr)	Spring Members' Meeting	Dorset F&RS HQ, Poundbury
18 May (1230hr)	Spring Local Authority Seminar	Dorset F&RS HQ, Poundbury
15 June	R&D Group	Viking, Tipton
29 June	Technical Committee	Tyco, Manchester
12 July	Marketing	South Yorkshire F&RS
19 July	Council	Tyco BP, Trafford Centre, Manchester
17 August	Technical Committee	tba
6 September (0930hr)	Marketing	FIRAS Warrington (Firgrove Hotel)
6 September (1330hr)	Council	FIRAS Warrington (Firgrove Hotel)
7 September (0900hr)	Autumn Members' Meeting	FIRAS Warrington (Firgrove Hotel)
7 September (1230hr)	Autumn Local Authority Seminar	FIRAS Warrington (Firgrove Hotel)
18 October	Joint Water Mist Seminars	FIA Hampton
19 October	Joint Water Mist Seminar	FIA Hampton
26 October	Technical Committee	tba
8 November	Marketing	Victaulic, Stevenage
16 November (0930hr)	Council	Marriott Worsley Park
16 November (1400hr)	2011 AGM and Dinner	Marriott Worsley Park

### **2012**

14 November (0930hr)	Council	Venue tbc
14 November (1400hr)	2012 AGM	Venue tbc
14 November (1930hr)	2012 Dinner	Venue tbc
15 November	Fire Sprinkler 2012 Conference and Exhibition	Venue tbc



### *...and finally, a new item, the Caption competition*

You are invited to submit a caption for the adjacent picture, entries to be emailed to [info@bafsa.org.uk](mailto:info@bafsa.org.uk). There will be a small prize voucher for the best submission received by 30 April. Good luck! ❖