



Association of British Insurers

# TACKLING FIRE: A CALL FOR ACTION

December 2009



## Foreword

The current challenging economic climate is likely to have a significant impact on the number and cost of fires and has the potential to have an impact on the number of deaths and injuries which result from fire.

The insurance industry is increasingly concerned about rising fire losses: the cost of fire damage in 2008 in the UK rose by 16% on 2007 to a record £1.3 billion – £3.4 million every day.

This is at a time when the number of fires has been falling, but the cost of these has been increasing: the average cost of fire claims more than doubled between 2002 and 2008. We are particularly concerned that the number of fires does not start to increase as well.

There can be no complacency on the part of those tasked with preventing and reducing the number and cost of fires and their consequences. It is important for all concerned to share research and data to bring about a collective understanding of the impact of fire and to set priorities for risk reduction.

This paper highlights recent trends in fire and arson and puts forward proposals to help reduce these risks.

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### ARSON RATES

**30** times higher

Arson rates are 30 times higher in poorer areas, with a 15 fold increase in the chance of death compared with affluent areas.<sup>5</sup>

## Introduction

Historically, some kinds of crime, such as burglary, have tended to increase during times of economic difficulty and higher unemployment. Arson accounts for around almost half of fires at businesses<sup>1</sup> and around a fifth of fires at homes are deliberate<sup>2</sup>. During the last recession arson increased substantially: between 1990 and 1993 the number of deliberate fires increased from 53,000 to 80,000<sup>3</sup>.

The risk of being a victim of arson is not evenly spread, with those living in socially deprived areas most at risk of experiencing arson against themselves, or against their community<sup>4</sup>. Arson rates are 30 times higher in poorer areas, with a 15 fold increase in the chance of death compared with affluent areas.<sup>5</sup>

Financial pressures on businesses and increasing unemployment can provide the motivation and the opportunity for some people to commit both fraudulent and malicious arson at a time of economic pressure. Businesses and the public sector are also keeping a tight reign on costs and house-keeping and maintenance may suffer as a result making a fire more likely. Empty shops and businesses, a common feature of recession, are particularly vulnerable to fire, crime and arson attacks and ABI members are reporting that they are facing an increase in the number of large multi-million pound fire loss claims.

Fire does not just cost money, it causes deaths and injuries and it has a wider effect on society and the economy. It disrupts people's lives and it can destroy their most valued possessions. Fire can cause havoc in schools, hospitals and care homes and it can cause businesses to close down, in some cases permanently, resulting in job losses.

The Insurance Industry Working Group<sup>6</sup> report advocates sharing research and data to help bring about a collective understanding of the key impact of different risks, such as fire and to set priorities for public spending on risk reduction. This paper builds on the work of the IIWG by highlighting recent trends in fire and putting forward proposals which, if implemented, will help to reduce these risks.

Responsibility for the Fire and Rescue Service has now been fully devolved to the Scottish Government, the Welsh Assembly Government and the Northern Ireland Executive. More work is needed from all stakeholders – the governments of the United Kingdom, the Fire and Rescue Service, the insurance industry, businesses and others – to make sure that the number of fires, deaths, injuries and the economic consequences of fire are kept under control during and after the current economic downturn.

<sup>1</sup> Arson Prevention Bureau

<sup>2</sup> *Fire statistics United Kingdom*, CLG, 2007

<sup>3</sup> *Fire Statistics United Kingdom*, DTLR, 2000

<sup>4</sup> *Social Exclusion and the Risk of Fire*, ODPM Arson Control Forum, Research Bulletin 4, "April 2004

<sup>5</sup> *Community Safety Strategy*, Merseyside FRS

<sup>6</sup> *Vision for the insurance industry in 2020: a report from the insurance industry working group*, 2009

## Our Proposals

- 1 In light of the increasing cost of fire there should be targets to reduce the economic cost of fire in England, Scotland, Wales and Northern Ireland. This will require the governments of the UK and the insurance industry to develop credible measures for the economic cost of fire which can be used by local fire services to measure and improve performance.
- 2 The next National Frameworks which set the strategic direction of the Fire and Rescue Authorities and the Service need to give a far higher priority to the economic consequences of fire.
- 3 The Fire Protection Association (FPA) should provide Chief Fire Officers with information about the costliest fires in their areas to help inform them about their causes.
- 4 The police and local Arson Task Forces (ATFs) need to work more closely together to target arsonists and bring them to justice. Local police forces should dedicate officers to the fight against arson by working with local ATFs.
- 5 Insurance, Fire and Rescue Service (FRS) and police investigators should also work more closely together and agree a common methodology for fire investigation.
- 6 The ABI will refocus the work of the Arson Prevention Bureau (APB) to raise awareness among insurance customers and others of the risk of arson and to publicise insurance industry successes in bringing prosecutions against both malicious and fraudulent arsonists.
- 7 The Insurance Fraud Bureau (IFB) should consider how it might add value to tackling fraudulent arson, potentially including data sharing and intelligence activities to identify organised fraudulent arson and assisting with investigations.
- 8 The governments of the UK and local government, working with the Arson Control Forum (ACF), Crime and Disorder Reduction Partnerships (CDRP) and others, should resource and lead national campaigns to tackle arson to make the public, schools and businesses aware of the risk of arson and what they can do to reduce it (for example by attaching a higher priority to arson within fire risk assessments). The campaigns should include providing information and guidance on arson, how common it is, where it usually starts and some commonsense suggestions to reduce the risk.

- 9 The UK governments, the Fire and Rescue Authorities (FRAs), the insurance industry and the business community need to work together to promote good fire risk management during the recession. This will involve the distribution of good quality risk management guidance and advice and guidance by insurers and brokers and more visits to businesses by local FRSS.
- 10 FRAs need to continue to develop and share best practice on home visits particularly on how they can best target and protect the most vulnerable in our society through fire safety education and by fitting smoke detectors where they live.
- 11 A wide-ranging review of the case for sprinklers and effective fire compartments in new buildings should be jointly led by the UK administrations in the light of the increasing cost of fire. Independent Project Boards involving officials and stakeholders such as insurers, the business, education, care home and health sectors and the fire industry should oversee the work, which should also examine international experience. The work should include residential buildings, warehouses and other single storey buildings and should include other uses like care homes, schools and hospitals.
- 12 The UK governments, construction industry and insurance industry need to set up task forces to urgently consider what can be done to better understand the fire performance of Modern methods of Construction (MMC) building types and how to reduce the risks associated with them. The task force should also consider how these building types can be more easily identified by the Fire and Rescue Service, the insurance industry and others.

## COSTS OF FIRE

# £65m

Zurich Municipal estimates that the cost of school fires in 2008 was £65m of which 75% was attributable to arson.

# £7bn

The cost of fire in England and Wales has been estimated at over £7bn<sup>10</sup>

## The cost of fire

### Social cost of fire

Fire continues to kill and injure. Across the UK there were 443 deaths and 13,200 casualties from fire in 2007<sup>7</sup>. This was the lowest number of deaths since 1950 and the Fire and Rescue Service and their partners should be congratulated for helping to bring this reduction about. But there are still too many deaths and the very latest provisional figures regrettably show an increase in the number of deaths from fire<sup>8</sup>.

Fire and arson also have a wider social impact on society. In 2006 the Fire Service attended 1,800 fires at school premises. Zurich Municipal estimates that the cost of school fires in 2008 was £65m of which 75% was attributable to arson. Twenty schools per week suffer an arson attack and 90,000 schoolchildren can have their education affected by school fires with the potential loss of coursework, teachers' notes and staff morale<sup>9</sup>.

Similarly, when a major employer suffers a fire it is likely to cause disruption to the business and the employees. In some cases, the fire may lead to the business closing down or relocating, as happened with a frozen food factory in the North East of England, which was destroyed by fire in January 2009 with the loss of hundreds of jobs. This can lead to a knock-on effect on the local economy, with the workforce finding it difficult to find new jobs, especially during the recession.

Fire destroys homes and valuables some of which cannot be replaced. Lives are also disrupted as people have to move into alternative accommodation while their homes are repaired or rebuilt.

### Economic cost of fire

The cost of fire in England and Wales has been estimated at over £7bn<sup>10</sup>. £2.77bn of this cost was incurred in the anticipation of fire. The cost of the Fire and Rescue Service (FRS) responding to fires was £1.74bn, with £2.52bn attributable to the consequences of fire, consisting of property damage, lost business, the economic cost of injuries and fatalities and the criminal justice service costs associated with prosecuting deliberate fire starters. This overall figure includes the cost of arson which was estimated at £2.44bn in 2004.

Fires can also have a major environmental impact, and even a small fire can produce substantial carbon emissions.

### Insured cost of fire

The insured cost of fires has increased substantially in recent years as highlighted in the chart on page 10. At the same time the number of fires in homes and at business premises has been falling. These trends have resulted in the average cost of fires in the UK more than doubling between 2002 and 2008 (figure 2). Since 2002, the average cost of a home fire insurance claim has increased from £3,403 to £7,898 and the average commercial fire claim from £10,543 to £20,530. These increases are far in excess of the increase in rebuilding costs over the period which was around 35%.

This is extremely worrying as an increase in the number of fires is more likely during the recession. The most recent statistics collected by the ABI indicate that in 2008 there was a 16% increase in the insured cost of fires to £1.3bn<sup>11</sup>.

The figures show that in 2008:

- Commercial fire damage cost £865 million, up 15% on the previous year.
- Fire damage to homes cost £408 million, up 17% on the previous year.

In addition, business interruption following fires results in insurance claims of around £200m per year.

This cost must ultimately be borne by households and businesses who pay for it through their insurance premiums.

It is a reasonable assumption that if the insured costs are rising, the uninsured costs are also rising and therefore the economic cost of fire to society as a whole is increasing.

<sup>7</sup> Fire Statistics United Kingdom, CLG, 2007

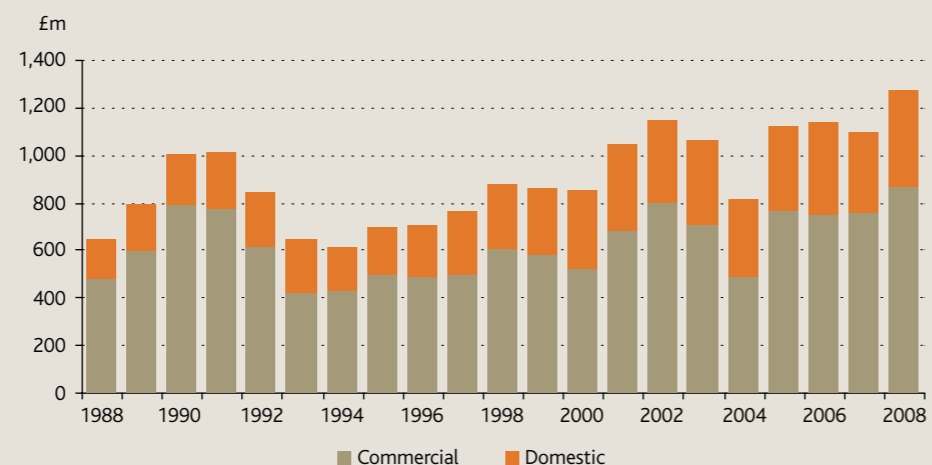
<sup>8</sup> Fire Statistics Monitor Issue, CLG, 03/09

<sup>9</sup> Arson Prevention Bureau

<sup>10</sup> *The Economic Cost of Fire: Estimates for 2004*, ODPM

<sup>11</sup> ABI Research

Figure 1 – Annual cost of fire claims between 1988 and 2008

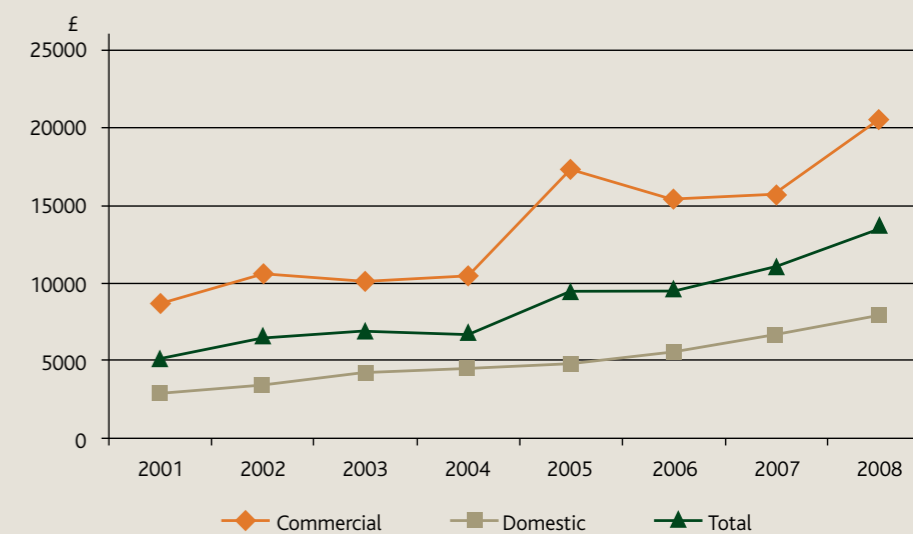


Source: ABI Research

The governments of the UK also set targets on reducing the number of fires and arson attacks and deaths from fire. The Scottish Government also includes reducing the economic effect of fire as a key priority and the Welsh Assembly Government includes reducing the commercial, economic and social impact of fire in its Risk Reduction Plans. However, there are no credible national methodologies for measuring the cost of fire in local FRS areas and there are no national targets to reduce this cost.

The governments of the UK set out their expectations for their fire services and what is required to meet them in their National Framework documents. These are updated every few years. However, it is clear that the current priorities need to be reviewed and changed to take into account the increasing cost of fire.

Figure 2 – Average cost of a fire claim 2001 – 2008



Source: ABI Research

**Proposals on the cost of fire**

**Proposal:** In light of the increasing cost of fire there should be targets to reduce the economic cost of fire in England, Scotland, Wales and Northern Ireland. This will require the governments of the UK and the insurance industry to develop credible measures for the economic cost of fire which can be used by local fire services to measure and improve performance.

**Proposal:** The next National Frameworks which set the strategic direction of the Fire and Rescue Authorities and the Service need to give a far higher priority to the economic consequences of fire.

**Proposal:** The Fire Protection Association (FPA) should provide Chief Fire Officers with information about the costliest fires in their areas to help inform them about their causes.

## What is causing the increase in the average cost of fires?

The available research and data does not tell us conclusively why the cost of fire is increasing or what has caused the average cost of a fire insurance claim to more than double between 2002 and 2008. However, only about 35% of this increase can be put down to the increasing costs of rebuilding after a fire. Nor do we believe that the increase is entirely driven by more expensive contents in homes and businesses. Rather, our research points to a number of factors driving the increase rather than just one or two. These include:

- Open plan buildings which allow fires to spread more easily
- Developments taking place in out of town locations where fires can take hold without being noticed
- Longer response times by the fire service due to heavier traffic
- Difficulties with water pressure to allow effective fire fighting
- New building techniques, particularly timber frame, which allow rapid fire spread
- Many fires at businesses, schools and other premises are caused by arson, where multiple fires are set at a building so leading to large losses
- Just-in-time delivery, which has led to an increase in contents stored in fewer depots.

We are also concerned that the recession may lead to a further increase in the number and cost of fires as there is likely to be more fraudulent and malicious arson. There are also likely to be more empty homes and premises which are more prone to fire and arson and businesses may be less careful about good house-keeping making fires more likely.

### CAUSES OF ACCIDENTAL FIRE

#### In the home

- Cooking accidents
- Faulty electrics
- Smoking
- Candles

#### In the workplace

- Faulty appliances
- Faulty leads
- Equipment misuse
- Appliance misuse
- Electrical accidents

## What causes fires?

### Accidental fires

The main causes of accidental fires in the **home** are:

- Cooking accidents (which account for over half)
- Faulty electrics (appliances, wiring and overloaded sockets) cause around 7000 house fires across the country each year
- Smoking (every three days someone dies from a fire caused by a cigarette)
- Candles (which start more than five fires a day)

CLG report that accidental fires in **commercial buildings** are mainly caused by faulty appliances and leads and misuse of equipment or appliances. Fire Protection Association (FPA) research<sup>12</sup> identified that the most common cause of accidental fire is faults in equipment and apparatus.

Electricity continues to kill and injure people. The HSE report that there are over 1000 electrical accidents at work each year. Electrical faults are also a major cause of fires in commercial buildings.

Employers should always undertake fire risk assessments to understand the fire risk in their workplace and take steps to manage any risks identified.

### Deliberate fires

Around a fifth of house fires are deliberate or suspected to be deliberately started. Of all buildings, private garages and sheds are the most prone to deliberately started fires. But businesses are also vulnerable.

A recent report from the FPA<sup>13</sup> found that around half of large fires at businesses were deliberate and the larger the fire, the more likely it was to be caused deliberately. Many large fires were also caused out of business hours, often at night.

<sup>12</sup> Report to Insurers Insured large loss fires project, FPA, 2009

<sup>13</sup> Report to Insurers Insured large loss fires project, FPA, 2009

## How do we prevent fire from starting?

### Tackling Arson

There has been some good work in recent years by local Arson Task Forces and others to reduce the number of arson fires. However, the welcome fall in the number of deliberate fires is due in large part to the reduction in cars being set alight because of things like better security in new cars, vehicle removal schemes and the increase in the value of scrap metal. The Government's car scrappage scheme may also reduce the number of old cars set alight.

Decreases in the number of deliberate fires at homes and businesses have been much less pronounced than the reduction in the number of deliberate vehicle fires.

As arson is a major cause of fire at homes and businesses more needs to be done to tackle it. We need to establish a zero tolerance approach to arson and to focus on increasing the detection and prosecution of arsonists as far too many get away with it. The detection rate for arson is currently 8% compared with 24% for all offences<sup>14</sup>. High-profile prosecutions of arsonists would help to get the message across that it is unacceptable and that it has consequences.

Many in the Fire and Rescue Service are of the view that those Services that have a police officer or officers working closely with the local Arson Task Force are far more successful at identifying arson and prosecuting arsonists.

Insurers are devoting more resources to tackling fraud and the detection of general insurance fraud has improved significantly over the last five years. Over £730 million worth of fraudulent claims were detected and prevented in 2008<sup>15</sup>. This represents a 30% increase in detection since 2007. But the insurance industry wants to do more to target fraudulent arson and will be looking closely at this in the coming months.

<sup>14</sup> *Tackling Arson*, Home Office, 2006

<sup>15</sup> ABI Research

### Proposals for Tackling Arson

The fight against arson depends on successful prosecution of those responsible to ensure deterrence and help for businesses and residents to understand the risk and protect their properties.

**Proposal:** The police and local Arson Task Forces (ATFs) need to work more closely together to target arsonists and bring them to justice. Local police forces should dedicate officers to the fight against arson by working with local ATFs.

**Proposal:** Insurance and Fire and Rescue Service (FRS) investigators and the police should also work more closely together and agree a common methodology for fire investigation.

**Proposal:** The ABI will refocus the work of the Arson Prevention Bureau (APB) to raise awareness among insurance customers and others of the risk of arson and to publicise insurance industry successes in bringing prosecutions against both malicious and fraudulent arsonists.

**Proposal:** The Insurance Fraud Bureau (IFB) should consider how it might add value to tackling fraudulent arson, potentially including data sharing and intelligence activities to identify organised fraudulent arson and assisting with investigations.

**Proposal:** The governments of the UK and local government, working with the Arson Control Forum (ACF), Crime and Disorder Reduction Partnerships (CDRP) and others, should resource and lead national campaigns to tackle arson to make the public, schools and businesses aware of the risk of arson and what they can do to reduce it (for example by attaching a higher priority to arson within fire risk assessments). The campaigns should include providing information and guidance on arson, how common it is, where it usually starts and some commonsense suggestions to reduce the risk.

### Fires in the home

The FRS has had considerable success in reducing the number of fires in the home and the number of deaths from fire. However, more needs to be done to educate people about how fires start and how to prevent them. FRSs need to continue to learn from each other how home visits and other tools can be used to get key messages across about fire safety.

More also needs to be done to promote the use of fire safety cigarettes.

### Fires at Businesses

Fire safety legislation requires building owners and those using them to undertake a fire safety risk assessment. However, during the recession businesses are likely to be concentrating on survival and cutting costs and may not be as focused on managing the risks facing the business. But this is not the time to neglect health and safety and fire risks, because a fire will at best be disruptive to a business and at worst lead to death of and injury to employees and the business closing down.

Insurers and brokers are useful sources of information and guidance for businesses and can help their customers to manage their risks. Businesses that want advice on business continuity, health and safety, security and fire risks can speak to their insurer or broker about their concerns and get help. For example, the Fire Protection Association has developed a free software package on business continuity<sup>16</sup> which is aimed at SMEs. Local Fire Services are also well placed to offer help and advice.

Insurers are also concerned about the number of premises which are empty because the business has closed down and moved out. These premises are at particular risk from crime, arson and from fire generally and their owners should regularly check them to make sure they are secure and remove any potential fire hazards such as build up of material in the letterbox. There is also the danger that children, attracted by empty properties, may injure themselves and others.

### Proposals to improve Risk Management

**Proposal:** The UK governments, the Fire and Rescue Authorities (FRAs), the insurance industry and the business community need to work together to promote good fire risk management during the recession.

This will involve the distribution of good quality risk management guidance and advice and guidance by insurers and brokers and more visits to businesses by local FRs.

<sup>16</sup> ROBUST (resilient Business Software Toolkit), RICS Authority

## Once a fire has started how can the impact be minimised?

### SMOKE ALARMS

# 47%

Official figures show that smoke alarms were absent in 47% of fires in homes.

### Home visits

The increased use of smoke alarms has had a significant impact on the number of house fires which result in fatalities or injuries. Official figures show that smoke alarm ownership increased from 8% in 1988 to 70% in 1994 but that it has risen more slowly since then to around 80%<sup>17</sup>. The figures also show that smoke alarms were absent in 47% of fires in homes.

These figures indicate the key role that smoke alarms play in alerting people to fires so that they can safely get away from fires and take action to put the fire out and/or call the fire brigade. The Fire and Rescue Service must continue to work hard to try to increase the number of homes with smoke alarms fitted as there seems to be around 20% of dwellings where it is proving difficult to persuade the residents of the benefits of these alarms.

The Government funded Home Fire Risk Check initiative gave an important impetus to getting smoke alarms fitted in more difficult to reach homes. In 2004 the Government allocated £25m as a capital fund to be used for the purchase of smoke alarms or equipment. English Fire and Rescue Services (FRS) received payments based on an assessment of the smoke alarm coverage and relative deprivation/fire risk in each FRS area. The FRS (and its partners) were encouraged by ODPM to install free 10 year smoke alarms into the homes of the vulnerable and at risk groups, in particular elderly persons (65yrs +).

Other groups also highlighted for targeting included single adults, single parents, smokers, those on low incomes and black and minority ethnic households. This initiative has been successful and the cost of the fund has been far outweighed by the benefits.

The Government funded Fire Kills media campaign has also focused on promoting smoke alarms and asking people to check that they work. This campaign has been successful and it should be continued.

The cost of fire falling on the poor is under-represented in insurance claims figures because the poorest households are the least likely to insure. Socially deprived households are also much more likely to suffer fires than households in general, and the poor are more likely to die in a fire and are less likely to own smoke detectors.

<sup>17</sup> Fire Statistics United Kingdom, CLG, 2006

## FIRE RESPONSE TIMES

# 6.5 minutes

Government funded research indicates that the average response times to dwelling fires increased from 5.5 minutes in 1996 to 6.5 minutes in 2006.

The most vulnerable in society face the highest risk, are the least prepared and have the least financial protection. The ABI is working with its members and other stakeholders through the Access to Insurance Working Group to improve the take up of home insurance among low income groups, particularly through greater take up of tenants' contents insurance which can cost as little as £1 per week.

**Proposal:** FRAs need to continue to develop and share best practice on home visits particularly on how they can best target and protect the most vulnerable in our society through fire safety education and by fitting smoke detectors where they live.

### Fire Service Response

Response times, that is the time it takes for the Fire and Rescue Service to arrive at fires having received a call, are increasing and this is due to a combination of factors, including heavier traffic. Government funded research indicates that the average response times to dwelling fires increased from 5.5 minutes in 1996 to 6.5 minutes in 2006 (18% increase)<sup>18</sup>.

Concerns have also been expressed that water pressure is not always adequate to facilitate effective fire fighting. Reduced water pressure and flow rates across the UK is increasingly becoming a common problem, as water supply utility companies reduce pressure to reduce water leakage from their underground mains infrastructures.

This has been evidenced at a number of very large losses sustained by insurers where it is apparent from reports that the conflagrations have become quite serious due to the inadequate performance of the water supplies resulting in a major risk of water shortage at large fires. This clearly has a detrimental effect of the ability to fight fires, and places serious challenges for life safety and property protection.

These issues need to be monitored closely because they could lead to fires being more destructive and expensive. If response times increase, there is a stronger case for improved fire protection measures such as sprinklers to stop fires from spreading and early warning devices. These measures should be considered as part of each premises owners' overall risk management strategy.

<sup>18</sup> Review of fire and rescue service response times, CLG

## BUILDING REGULATIONS

# 30 metres

In England and Wales, new residential properties above 30 metres in height must be sprinklered and warehouses over 20,000m<sup>2</sup> must have sprinklers.

### Fire Protection

Wherever fire starts, the intention should be to ensure that, if possible, the fire remains in the room of origin, or is prevented from entering a building from the outside, so that the fire can be extinguished without spreading to the rest of the building. The key is to restrict fire growth and spread to ensure safe evacuation. This can be achieved by:

- Passive fire safety systems built into the construction itself, to enable the building to be broken into discreet fire compartments with adequate resistance to fire, to avoid structural collapse and to avoid fire spread and/or
- An active system designed to alert occupants to dangers, and to activate and enable fire suppression systems, which can reduce the threats from fire and smoke release.

Sprinkler systems can be installed both in homes and at businesses and can be effective in both, but they need to be professionally installed and should be properly maintained.

Research from the Fire Protection Association suggests that many large fires take place in open-plan buildings which do not have compartments and where no sprinkler systems are present. We know that sprinkler systems can quickly contain and put out fires, so saving lives and reducing the cost of fires significantly.

However, they do come at a cost and this is why the Governments of the UK have, up until now, been reluctant to require their use through regulation except where life safety considerations are significant. In fact, the Building Act 1984, under which the Building Regulations are made, is very much focused on life safety and not on property protection. It should also be remembered that changes to the Building Regulations will only impact on new buildings and major refurbishments, but will not have an impact on the existing building stock.

However, there have been some important developments in fire safety following recent changes to the Building Regulations<sup>19</sup>. In England and Wales, new residential properties above 30m in height must be sprinklered and warehouses over 20,000m<sup>2</sup> must have sprinklers. New guidance on fire safety in residential care homes, including on the use of sprinklers has also been introduced.

Separately new guidance has been issued recommending that new schools in England and Wales should have sprinklers fitted unless there are good reasons for not fitting them.

<sup>19</sup> Approved Document B (Fire Safety) 2006 Edition

Scotland is leading the way on sprinklers. The Scottish Government introduced a building regulation on 1 May 2005 requiring the mandatory installation of residential sprinklers into all new high rise domestic buildings (more than 18m above ground level), sheltered housing complexes and residential care buildings such as care homes and residential school accommodation<sup>20</sup>.

In addition, sprinklers are required in all covered shopping centres and the Scottish Government is currently considering proposals to require the mandatory installation of sprinklers in all new primary and secondary schools from October 2010.

The Welsh Assembly has also put forward proposals for sprinklers to be fitted in all new homes and in Wales funding of new schools and refurbishments is dependent to some degree on the installation of sprinklers.

However, there is reluctance to regulate for sprinklers to be fitted more widely because research commissioned by the Government has concluded the cost of fitting them would, in many cases, outweigh their benefits<sup>21</sup>, but the case for sprinklers being introduced more widely needs to be reconsidered in the context of the increasing cost of fire.

<sup>20</sup> *Building (Scotland) Regulations 2004*

<sup>21</sup> *Sprinkler installation trends and fire statistics for warehouse buildings*, BRE, 2006

The table below highlights that many other countries require sprinklers to be fitted in much smaller warehouses than in England and Wales.

**Table 1 – Size of warehouse permitted in each country before sprinklers are required**

COUNTRY	NORMAL HAZARD	HIGHER HAZARD
England and Wales	20 000 <sup>m2</sup>	
Scotland	14, 000 <sup>m2</sup>	1,000 <sup>m2</sup>
Denmark	5,000 <sup>m2</sup>	2,000 <sup>m2</sup>
France	3,000 <sup>m2</sup>	3,000 <sup>m2</sup>
Germany	1,200 <sup>m2</sup>	400 <sup>m2</sup>
Netherlands	1,000 <sup>m2</sup>	1,000 <sup>m2</sup>
Norway	1,800 <sup>m2</sup>	1,200 <sup>m2</sup>
Spain	2,000 <sup>m2</sup>	1,000 <sup>m2</sup>

Source: Sprinkler installation trends and fire statistics for warehouse buildings, BRE, 2006

There is also concern that only around 1% of all UK schools have sprinklers and not all new schools are having sprinklers fitted. The Governments of the UK need to look into whether the number of new and refurbished schools that are having sprinklers fitted is satisfactory and, if not, take steps to improve the take up of sprinklers in new schools.

Insurers can encourage the use of sprinklers by offering discounts of up to 50% of the fire element of the premium to commercial customers and for schools, but this is insufficient in the short term to justify their installation on cost and benefit grounds alone. The competitive nature of the market means that insurers cannot replace regulation in ensuring that fire safety standards are upheld.

Insurers welcome recent research reports which have been commissioned by CLG on low-cost residential sprinklers; the case for sprinklers in areas of development like the Thames Gateway and the use of sprinklers in high-risk buildings, but more action is needed to address the increasing cost of fire.

Concerns about the fire performance of some buildings which have been built using Modern Methods of Construction have also been identified by the insurance industry and elsewhere. For example, the speed of the spread of the fire at the timber frame construction site at Colindale in London in 2006 was shocking. These concerns were also highlighted in the FPA research.

These concerns are not restricted to the construction phase, but extend to how occupied timber frame buildings perform in fires.

### Proposals to minimise the impact of fire

**Proposal:** A wide-ranging review of the case for sprinklers and effective fire compartments in new buildings should be jointly led by the UK administrations in the light of the increasing cost of fire. Independent Project Boards involving officials and stakeholders such as insurers, the business, education, care home and health sectors and the fire industry should oversee the work, which should also examine international experience. The work should include residential buildings, warehouses and other single storey buildings and should include other uses like care homes, schools and hospitals.

**Proposal:** The UK governments, construction industry and insurance industry need to set up task forces to urgently consider what can be done to better understand the fire performance of Modern Methods of Construction (MMC) building types and how to reduce the risks associated with them. The task force should also consider how these building types can be more easily identified by the FRS, the insurance industry and others.

## Conclusion

The challenging economic environment, with higher unemployment, is likely to have a significant impact on the number and cost of fires and has the potential to have an impact on the number of deaths and injuries which result from fire.

Insurers are reporting record fire losses: in 2008 there was a 16% increase in the insured cost of fires to £1.3bn. School fires alone cost £65m and an enormous amount of disruption to the education of many children and the lives of their parents and teachers. Many lives and businesses are also disrupted by fire and it has a significant cost to our economy.

The ABI calls upon the Governments of the UK, the fire services and other stakeholders to adopt the proposals in this document to reduce the impact of fire during and after the current recession.



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