FIRE SAFETY GUIDE TO ARSON

This document is designed to assist NFU Mutual customers in managing fire risks associated with arson

NFU Mutual
RISK MANAGEMENT SERVICES

INTRODUCTION

Arson has become the most frequent cause of fire in all types of buildings accounting for over half of all fire losses. Deliberate fires tend to be more serious as arsonists often set multiple points of ignition and use flammable liquids to aid rapid growth and spread. To compound the issue, existing protection measures can be tampered with and premises are typically targeted outside of normal business hours, when they are most vulnerable.

Losses are not restricted to buildings and contents. A significant fire can also cause injury to staff, visitors and emergency personnel as well as interruption to business activities, potentially leading to closure and the loss of livelihoods.

Both the likelihood of an arson attack and the severity of the damage can be reduced by implementing an arson Risk Management Programme incorporating the guidelines, detailed below. We recommend a designated person or team oversee the programme to ensure all aspects are properly managed and that any required action is implemented and reviewed regularly.

WHAT TYPES OF PROPERTY ARE AT RISK?

According to research conducted by the Association of British Insurers, some 80% of organisations' never fully recover from a large fire and whilst all types of property are at risk, including factories, houses, warehouses, shops, schools and places of worship, unoccupied properties and buildings undergoing construction or renovation works are particularly vulnerable.

Always inform your insurer if your premises are to be vacated and ensure you comply with any mandatory Insurer requirements, not only in respect of the general security of the premises, but also for other hazards, such as fire, water damage, frost, personal injury risks to employee's and visitors.

WHEN AND WHY DO ARSON ATTACKS TAKE PLACE?

Arson can occur at any time of the day or night, although most attacks take place between 7pm and 7am. Many are caused by children with matches or lighters, but others may set fires for a variety of reasons including boredom, malice, racial and religious tensions, peer pressure, emotional crises or problems at school. Some arson losses may even be undertaken for financial gain.

WHAT CAN YOU DO?

Both the likelihood of an arson attack and the severity of damage can be reduced by implementing an arson risk management program focussing on security improvements.

By improving the security of your property in addition to other recommended measures, you can substantially reduce the risk of becoming a victim of arson.

FIRE RISK ASSESSMENT

A fire risk assessment to be undertaken to identify and evaluate the potential for a serious fire at your premises. Responsibility for the fire risk assessment rests with occupiers and owners of business premises and should include the construction of the premises, working practices within, fire inception hazards, likely fire spread potential and the suitability and standard of fire protections including your fire alarm, fire doors, emergency lighting, escape signage and fire extinguishing appliances.

The risk assessment to be carried out by a suitably competent person and any necessary control measures carried out to reduce the risk and effects of fire, including:

1. Consider the area within which the property is located e.g. is vandalism a problem?
2. Are there any vulnerable areas around the building e.g. areas out of sight?
3. What fire hazards are present – waste material, inflammable liquids etc.;
4. Is it possible to eliminate, reduce or control these risks e.g. arrange more frequent waste collections;
5. Who could be responsible for starting a fire e.g. children, intruders, former members of staff, visitors, etc.?
6. Under the agreed control measures, is the existing physical security adequate? Don't just consider locks, bars, etc. but also whether doors and windows and the fabric of the building are physically strong enough to prevent unauthorised entry;
7. If an Intruder alarm is installed, does the detection cover all possible access areas and is the alarm subject to formal maintenance? When was the last time alarm or door access codes were changed and does this need to be reviewed?
8. What fire safety measures are in place e.g. automatic fire alarm systems, compartmentation of buildings etc.

We recommend the local Fire & Rescue Service are invited to visit the premises to assess water sources and familiarise themselves with the layout and the location of buildings.

NFU Mutual Risk Management Services Ltd can provide Clients with a specialist Fire Risk Assessment advice. If you require assistance, please contact one of our sales team on freephone **0800 132029** who can provide further details.

AUTOMATIC FIRE ALARMS

Many deliberate fires are started when the premises are unoccupied. This means any faults or issues that could give rise to a fire are not detected quickly after ignition, with the potential for rapid growth.

Consider installation of, or upgrading your existing Fire Alarm system to, an automatic fire alarm system conforming to the current version of **BS5839: Fire Detection and Alarm Systems for Buildings: Part 1: Code of Practice for Design, Installation, Commissioning and Maintenance of Systems in Non-Domestic Premises**. The installation to be designed and installed in accordance with category P1/P2 as defined, with remote signalling to an approved alarm receiving Centre.

A programme of testing, servicing, checking and maintenance in accordance with the installer's recommendations to be in place and documented.

PORTABLE FIRE EXTINGUISHERS

Suitable portable fire extinguishing appliances to be located throughout the premises. Regular inspection and maintenance to be undertaken, and recorded, by an approved supplier. Staff to be provided with instruction and training in the correct use of extinguishers.

AUTOMATIC SPRINKLER PROTECTION

Consider the installation of automatic fire sprinkler protection to reduce the risk of fire growth and spread in the event of ignition. Any new sprinkler system to be designed and installed in accordance with LPC rules **BS EN12845: Fixed Fire Fighting Systems Automatic Sprinkler Installations**.

HOUSEKEEPING AND WASTE CONTROL

Storage of pallets or other combustible materials against the building constitutes a severe fire risk. All such material to be removed and a clear space of at least 7metres (but wherever possible 10metres) maintained. Storage heights of such materials to not exceed 2 metres.

To prevent fire spread all skips and waste containers must be kept at least 7metres (but wherever possible 10metres) from buildings or other property or if this distance is not possible then lidded and locked containers to be used.

FLAMMABLE STORAGE

Flammable liquids within the premises could be used to start a fire. To reduce the risk the following storage arrangements to be adopted:

1. The volume of flammable paints and thinners stored within the premises to be kept to a minimum and not exceed 50L;
2. Where the storage of flammable liquids does exceed 50L a separate storage room to be constructed of incombustible materials with suitable ventilation. Any lighting systems within the room to be of flame proof specification with the light switches preferably installed externally. Doors to flammable stores to be secured by a deadlock complying with **BS3621: Thief resistant lock assembly. Key egress**;
3. Cans and containers to have their lids secured when not in use and, other than enough quantities for immediate use, be stored in an enclosed metal container;
4. If the premises are no longer occupied, all flammable liquids should be removed.

PERIMETER SECURITY

The perimeter fence or wall is the first line of defence and should present both an imposing obstacle and psychological deterrent, have gates or doors of equal strength and ideally allow intruders to be seen from outside.

Where possible the perimeter security should comprise:

1. welded mesh or palisade fencing to a height of at least 2.4metres;
2. gates and doors of the same height, without significant gaps beneath, secured by close shackle padlocks with a minimum of five levers and a suitable pad bar or bolt;

Avoid using solid fencing as once scaled and accessed it may provide a screen to hide criminal activity;

To prevent the scaling of the perimeter defences and to prevent it being set alight from outside the perimeter, all materials and any mature vegetation should be cleared at least 2 metres away from the boundary.

SECURITY OF PREMISES

Consider the following guidelines:

1. Reduce the number of entrances to a minimum and ensure they are secured when not in use or fitted with access controls
2. Provide reception areas with facilities such as toilets to segregate visitors from staff
3. Provide a small meeting room in the reception area to reduce visitor access to the main premises
4. Maintain a record of all visitors to the site
5. Internal doors should be closed at night as they may help contain a fire.
6. Fire doors should always be closed and not propped open unless automatic closers are fitted.
7. You should ensure you have a set locking up procedure at the end of each day which includes checking there is no one concealed in the building, ensuring doors and windows are secured and that any Intruder Alarm is set.
8. Appoint a Security Manager – it is important that one person is made responsible for security. They can delegate responsibility for certain aspects to others, but they need to retain overall control.
9. Where an independent security company is used ensure they are reputable and experienced and approved by an independent inspection body such as NSI.

DOOR SECURITY

External doors other than designated emergency exits to be secured by locks complying with **BS3621: Thief resistant lock assembly. Key egress** or European Standard **EN 12209: Building hardware. Mechanically operated locks and locking plates. Requirements and test methods** and achieving a Security Grade of 5 or above.

Potential vulnerable points to be reduced/ eliminated including:

i. Fitting metal containers on the inside of letter boxes to contain fires from incendiary materials;

ii. Reducing gaps under doors to prevent incendiary materials being pushed under, and;

iii. Protecting air vents.

WINDOW SECURITY

Consider the following guidelines:

1. External basement, ground floor or other accessible windows to be secured by key operated locks;
2. Consideration should be given to additional protection of vulnerable windows by heavy duty security grilles, bars or shutters;
3. Accessible sky lights should be secured or additionally protected as above.

INTRUDER ALARM PROTECTION

Consider installation, or upgrading of any existing system to, an Intruder and Hold-up Alarm system complying with BS EN 50131 and The National Police Chiefs' Council (NPCC) Security Systems Policy. The supply, installation and maintenance of the system to be undertaken by a UKAS accredited installer and approved by an independent inspection body such as NSI www.nsi.org.uk or SSAIB www.ssaib.org

The alarm to connect to an NSI approved Alarm Receiving Centre complying with **BS5979 Remote centres receiving signals from fire and security systems. Code of practice or BS EN 50518: Monitoring and Alarm Receiving Centre** preferably by dual path signalling. The system should use 'sequential' alarm confirmation, enabling the Alarm Receiving Centre to filter alarm signals and avoid unnecessary police attendance following false alarms complying with **BS 8243: Installation and configuration of intruder and hold-up alarm systems designed to generate confirmed alarm conditions. Code of practice**

OUTBUILDINGS

Any outbuildings within the boundary need to be securely locked. Some outbuildings can be lightweight in their construction, e.g. timber walls or felt roofing. Often these buildings contain items that can be helpful to a potential arsonist, thief or vandal including tools and ladders. Therefore, any ladders stored within the buildings should be secured using good quality chains and padlocks and tools removed to a more secure location.

ROOF ACCESS

You should always try to prevent access to roofs.

1. Consider the use of anti-climb paint on drainpipes. This should not be applied below a height of 2 metres and warning signs need to be displayed.
2. Other means of access to roofs include waste receptacles on wheels, wheelie bins and water butts, and these must be kept away from the buildings whenever possible.

SECURITY LIGHTING

It is recommended that security lighting, either on timer switches or fitted with passive infra-red detectors that detect movement are operational from dusk to dawn, be installed and located:

1. to avoid the production of shadowed areas where intruders can operate unseen
2. as high as possible, out of reach of vandals and fitted with protective coverings.
3. armoured cable should be used if malicious damage is also a risk.

CLOSED CIRCUIT TELEVISION

Consider CCTV coverage of external areas of the premises as follows:

1. The supply, installation and maintenance of the system should be undertaken by a competent and qualified installer, preferably approved by an independent inspection body such as National Security Inspectorate (NSI)
2. The system should ideally comply with British Standard **BS8418 Installation and remote monitoring of detector-activated CCTV systems. Code of practice**, or European Standard **BS EN 50132 Alarm Systems. CCTV surveillance systems for use in security applications. Application guidelines**
3. The system to provide coverage of all vulnerable areas
4. Enough lighting should be provided, or night time vision cameras used, to ensure pictures are of suitable quality during the hours of darkness.
5. To be fully effective the system should be activated, out of business hours, by detectors within the perimeter security of the premises and be connected to an NSI approved Alarm Receiving Centre which can arrange an appropriate response.

USE OF SCAFFOLDING DURING BUILDING WORKS

Any scaffolding erected at the premises provides a potential access point onto the roof of the building or upper floor levels. As a result, special care needs to be taken and the following additional security measures should be put into place:

1. Only erect scaffolding where it is needed for a particular phase of work and remove promptly on completion;
2. Corrugated iron sheeting or solid timber boarding should be bolted to the base of the scaffold to a height of 3.5 metres to deter climbers and access ladders removed or similarly secured;
3. Erect temporary fencing around the site at a height of at least 2 metres;
4. Advise the local police of the presence of the scaffolding and the duration of the works;
5. Ask local people to keep an eye on the property;
6. Consider the use of security patrols or manned guarding undertaken by National Security Inspectorate (NSI) approved and licensed security personnel. For details of NSI approved companies in your area please visit www.nsi.org.uk;
7. Consider installing a temporary intruder alarm system to protect the scaffolding with automatic GPS alarm signalling to a security company. Such alarms should be installed and maintained by an NSI or SSAIB approved company. To find details of approved companies in your area please visit www.nsi.org.uk and www.ssaib.org.

EMPLOYEES

1. Disgruntled employees are a major cause of arson and references from new staff to be obtained and checked, particularly if they are to work alone or unsupervised;
2. If any staff members leave their employment or are the subject of disciplinary action, all access or alarm codes to be reviewed;
3. Temporary employees and any contractors to be adequately supervised, and;
4. Employees to be vigilant to the potential problems of arson fires and always challenge strangers on the premises.

UNOCCUPIED BUILDINGS

The protections listed above are equally relevant for unoccupied buildings, however, unoccupied buildings do have additional features to consider.

Further guidance can be found in the Fire Safety Guide for Unoccupied Buildings

FURTHER GUIDANCE

RISC Authority are a funded research scheme supported by a significant group of UK insurers and conducts research in support of the developments and dissemination of best practice on the protection of property and business. Guidance document - Risk Control RC48 - Arson prevention the protection of premises from deliberate fire raising are available at www.riscauthority.co.uk

nfumutual.co.uk/rms

NFU Mutual

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