

Loss Prevention Standards

Arson Prevention

Introduction

Arson continues to be a significant risk to organisations in the UK, and is one of the leading causes of fires within commercial premises, accounting for nearly half of all fires attended by the Fire & Rescue Services. Insurance claims as a consequence of arson tend to be considerably more expensive than non-arson claims, usually as a result of most of these incidents occurring during the night time and/or when the premises are closed. They can develop quickly, involve accelerants such as petrol and have multiple seats of ignition.

Any fire has the potential to spread throughout a site, endangering equipment and stock as well as causing disruption to the business. Even fires started in remote outlying areas have the potential to affect working operations, such as cutting-off roadways. Although all properties are potentially exposed to the risks posed by arson, statistics indicate that some are more vulnerable than others, such as schools, animal research establishments, places of worship and vacant buildings. Robust premises security measures supported by good levels of housekeeping and management will reduce the opportunity for arsonists.



Assessing the Risk

An arson risk assessment for the premises should be completed by a competent person, and an arson risk management programme implemented which should be managed and overseen by a responsible individual. This can assist businesses in reducing the likelihood (and severity) of suffering an arson-related incident. The arson risk assessment should consider the following:

- Identifying the susceptibility of the premises. Is there a history of vandalism/malicious attacks/crime in the area? Are there sections of the premises which are considered to be vulnerable such as, poorly lit and out of sight areas? What security measures have been implemented, both internally and externally?
- Identification of potential fire hazards such as:
 - Individuals who may be affected by a fire
 - Presence of combustible materials including waste, flammable liquids/gases etc.
 - Ignition sources which could start a fire
 - Elements of the building structure which could assist the spread of fire
- Identification of potential arsonist such as, intruders, visitors, contractors or employees
- Eliminating, reducing or controlling the identified hazards such as increasing the frequency of waste collections and replacing a flammable solvent with a non-flammable alternative
- Review security and fire protection arrangements to determine whether they are adequate
- Record and review the assessment regularly

N.B. Arson is a risk which should be included as part of the fire risk assessment procedure required to be undertaken to comply with the Regulatory Reform (Fire Safety) Order 2005 in force in England and Wales, along with similar legislation in Scotland and Northern Ireland.

Controlling the Hazards

Management Procedures

Employees should be made aware of the risk of arson, and be actively encouraged to challenge anyone on the premises not displaying the correct identification cards or who are behaving suspiciously.

Organisations should aim to maintain good staff relations as disgruntled or former employees can pose an increased arson risk. All new employees should be vetted and references sought and verified; this is especially important in respect of individuals who are likely to work unsupervised.

Visitors and contractors (including those working outside normal hours) should be adequately supervised, ensuring they do not have access to restricted areas, with all visits recorded. Access control systems should be installed to monitor and restrict access for employees, contractors and visitors as appropriate.

Temporary staff should receive fire safety awareness training. Consideration should be given to designing the premises so to avoid the need for individuals to pass through storage areas or similar unmanned sections of the building.

Physical Security Measures

Installing a good level of security within a building commensurate with the organisation's arson risk assessment, will reduce the opportunity for a potential arsonist. Perimeter fences, walls and gates provide the initial line of defence, and should be maintained in good repair, being tall enough and robust enough to deter unauthorised entry. Where possible security fencing such as welded mesh or palisade should be utilised and installed to a height of 2.4m. The number of building entrances should be kept to a minimum, and all openings such as doors, windows and roof-lights must be adequately secured using good quality locks. Gaps beneath external doors should be as small as possible and sealed where practicable, to prevent lit materials being pushed underneath. The location of the premises' loading bays, doors and windows should be positioned away from the main site gates and other points of entry. Letter-boxes which are integral to the building should have metal receptacles fitted to the inside of the slot to contain any fires from lit paper, rags etc.

Entry points to the premises should be supervised, and if this is not possible those left unattended should be adequately secured with special consideration given to designated fire exit doors. All building keys must be safeguarded and accounted for to make sure none are missing, and lost keys must be reported immediately to a supervisor. Security lighting is known as providing deterrence against intruders and so vandal resistant lighting should be installed in strategic positions around the premises, especially in vulnerable locations, establishing well-lit external areas. End-of-day procedures and inspections undertaken by nominated personnel should make sure that the premises are secured, individuals are not concealed, waste materials are removed, flammable liquids and gases are locked away, security and fire protection measure are operational, etc.

Guard Services

If using the services of contracted security guards, they should hold a security licence issued by the Security Industry Authority (SIA). A permanent guarding arrangement is preferable, i.e. 24-hours a day, 7 days per week, to mobile patrol services. Records and auditing should be maintained for:

- All inspections and patrols
- Contract personnel operating and any visitors
- Any incidents or actions affecting the security or safety of the building; and
- The issue and return of keys

Intruder Alarm Protection and CCTV Surveillance

In support of good building physical security measures, premises should also be fitted with an intruder alarm system to deter and provide early warning of intrusion. The supply, installation and maintenance of the intruder alarm should be undertaken by a company approved by a UKAS-accredited certification body, such as the National Security Inspectorate (NSI) or the Security Systems and Alarms Inspection Board (SSAIB). Activation of the intruder alarm should be remotely notified, using a secure monitored connection, to an Alarm Receiving Centre (ARC) approved and certified by a UKAS-accredited certification body. The intruder alarm installation should comply with BS EN 50131-1.

CCTV camera systems can both detect and deter intruders, offering protection against potential arsonists. Cameras should be positioned to cover all vulnerable areas, with suitable lighting provided especially during hours of darkness. If the premises do not have a 24-hour presence, CCTV systems can be monitored remotely to enable a prompt keyholder-response following detection of any intruders. The system should comply with BS 8418 (the code of practice for installation and remote monitoring of CCTV systems activated by detectors).

Waste Control and External Storage

Every year there are significant numbers of fires in buildings or on sites in which combustible waste materials are involved. Poor storage and/or management of waste materials provide an ignition source for potential arsonists, increasing the risk of fire and its subsequent impact on an organisation. Fires can be prevented by introducing robust controls and effective management standards regarding the storage and disposal of these materials. Storage of waste materials should be kept to a minimum by avoiding/reducing waste, with actions proposed for the different waste types including; reusing, recycling or recovering waste materials. Arrange additional waste collections, particularly during peak periods, shutdowns and Bank Holidays, to avoid storing excessive amounts of materials over these periods.

Introduce designated external combustible waste storage areas including for the storage of idle pallets, skips and wheelie bins, with such items positioned at least 10m clear of any buildings and at least 2m away from perimeter fences (as fires in waste storage areas can spread to other buildings on site). Such storage should not obstruct egress from any external escape routes. Storage containers should be non-combustible, fitted with secure lids and kept in locked compounds. When not in use and at the end of each working day, flammable liquids and gases should be stored separately in proprietary non-combustible and secure containers, with suitable spillage containment provided. All fuel pumps should be isolated. Vegetation and undergrowth should be cut short and the cuttings removed.

Automatic Fire Alarms

The installation of a remotely monitored automatic fire alarm detection system can provide early discovery of fire, minimise the damage as a result of an arson incident, and deploy fire prevention measures such as automatic sprinklers and operation of automatic fire shutters, etc. The fire alarm system should conform to BS 5839 Part 1:2013 Category P1, to provide the highest level of property protection with fire detectors installed throughout all areas of the building (except small low risk areas as specified in BS 5839). The system should be designed, installed, commissioned and maintained in accordance with a suitable third party certification scheme, e.g. LPS 1014 operated by the Loss Prevention Certification Board (LPCB).

Fire Protection Systems

Some organisations have a higher threat from arson than others, and for these organisations additional protective measures such as the installation of an automatic sprinkler protection system should be considered. Although sprinkler systems cannot prevent arson, they can assist in reducing the subsequent damage by suppressing and controlling a fire. Based on the result of the arson risk assessment, a remotely monitored automatic sprinkler system conforming to the Loss Prevention Council (LPC) Rules for Automatic Sprinkler Installations 2009 incorporating BS EN 12845 should be provided throughout the building. The installation should be designed, installed, commissioned and maintained in accordance with a suitable third party certification scheme, e.g. companies whose names appear in the current 'List of Approved Fire and Security Products and Services', and the current list of 'LPCB Quality Assessed Companies to LPCB ISO 9001', both published by the LPCB.

An adequate number of fire extinguisher appliances should be installed throughout the premises, which should be regularly serviced, with formal training in their use provided to nominated individuals.

Vacant Buildings

Fires which occur in vacant buildings are generally as a result of arson, and those responsible for managing these properties should ensure that suitable controls are in place, examples of which include:

- Removing combustible materials from the building, both internally and externally
- Isolating all utilities (e.g. gas, electricity and water) except where required for fire and/or security protection systems and safety systems
- Draining down fuel tanks
- Ensuring that the property, including any perimeter fencing and yards, is maintained in a good state of repair
- Installing good levels of physical security in respect of all external entry points, i.e. doors, windows, roof-lights, etc.
- Installing additional security protection measures such as remotely monitored intruder alarm and CCTV systems, security guarding, etc.
- Restricting access to the premises, ensuring that all visits are formally recorded
- Undertaking regular (at least weekly) formally recorded inspections using competent individuals. Any damage or issues noted during these inspections should be immediately dealt with and managed

Summary

Whilst arson is known to be one of the leading causes of fires in the UK, there are a number of actions which an organisation can implement to reduce its exposure to this threat, as follows:

- Take responsibility and be vigilant
- Undertake an arson risk assessment and periodically review it
- Review premises security and fire precautions
- Provide staff awareness training, informing individuals about the threat of arson
- Ensure good housekeeping; do not allow waste and rubbish to accumulate either internally or externally
- Control visitors, customers and contractors
- Carry out end-of-day inspections

Checklist

A generic Arson Prevention Checklist is presented in Appendix 1 which can be tailored to your own organisation.

Additional Information

[Arson Prevention Forum](#)

[The Regulatory Reform \(Fire Safety\) Order 2005](#)

[RISCAuthority INFORMER Database](#)

Aviva Loss Prevention Standard: *Control and Management of Combustible Waste Materials*

Further risk management information can be obtained from [Aviva Risk Management Solutions](#)

Please Note

This document contains general information and guidance and is not and should not be relied on as specific advice. The document may not cover every risk, exposure or hazard that may arise and Aviva recommend that you obtain specific advice relevant to the circumstances. AVIVA accepts no responsibility or liability towards any person who may rely upon this document.

Appendix 1 – Arson Prevention Checklist

Location	
Date	
Completed by (name and signature)	

	Management Procedures	Y/N	Comments
1.	Does your business have an up to date arson risk management policy, with a designated individual nominated to oversee it?		
2.	Has a competent person(s) been appointed to complete an arson risk assessment?		
3.	Has the arson risk assessment been completed and is it up to date, covering the following areas: <ul style="list-style-type: none"> • Identification of the susceptibility of the premises to a fire being maliciously started? • Identification of potential hazards? • Identification of potential arsonists? • Eliminating, reducing or controlling the identified hazards? • Reviewing existing security and fire protection arrangements to determine whether they are adequate or require improving? • Reviewing and regularly updating the arson risk assessment? 		
4.	If applicable, have you shared your findings with other individuals/companies who share your premises?		
5.	If new premises are being considered, has an arson risk assessment been completed before moving?		
6.	Are efforts made to maintain good staff relations? During a <i>Managing Change</i> process involving issues such as redundancy and restructure programmes, are arrangements in place to deal with disgruntled employees, site closures, etc.?		
7.	Are new employees vetted and references sought and verified?		

	Management Procedures Contd.	Y/N	Comments
8.	Are supervisory staff informed of their responsibilities to minimise the potential for arson?		
9.	Is a record of all visitors/contractors entering the site maintained?		
10.	Are employees trained in arson-awareness and preventative measures?		
11.	Are procedures in place to ensure that all fires are investigated, and those which appear to have been deliberately started reported to the Police?		
12.	Is fire safety induction training provided to contractors, temporary workers, etc.?		
13.	Are employees actively encouraged to challenge anyone on the premises not displaying the correct identification cards, and/or behaving suspiciously?		
14.	Has contact been made with the local Fire & Rescue Service or the Police to build relationships with these organisations, and to improve awareness of local concerns and initiatives around arson (both services may also be able to offer arson-preventative advice)?		
15.	Have you liaised with nearby companies to discuss issues regarding arson, including reports of anti-social behaviour, fly-tipping, vandalism etc.?		

	Physical Security Measures	Y/N	Comments
16.	Is the perimeter fencing deemed high enough (2.4m) and strong enough to deter intruders? Is the fencing in good condition and regularly inspected with any damage immediately repaired?		
17.	Are perimeter gates and doors without significant gaps beneath?		
18.	Are the premises' loading bays, doors and windows located back from the main gates and other points of entry to the site?		

	Physical Security Measures Contd.	Y/N	Comments
19.	<p>Has vandal resistant security lighting been installed in strategic/vulnerable positions around the premises, including external storage areas?</p> <p>Is the security lighting designed to permanently operate overnight?</p>		
20.	<p>Has the number of building entrances been arranged to be the minimum possible, but in accordance with safe means of escape in the event of an emergency?</p>		
21.	<p>Are building entry points (including yard areas, flat roofs etc.) supervised/monitored or adequately secured?</p> <p>Can trespassers enter your site from adjacent properties?</p>		
22.	<p>Has consideration been given to ensuring that entry to accessible roofs and external stairways is secure (access should also be prevented from surrounding buildings or walls)?</p>		
23.	<p>Are external doors, windows, roof-lights and shop fronts adequately secured, with additional protections installed for vulnerable entry points?</p>		
24.	<p>Are all building keys suitably managed, accounted for and audited?</p>		
25.	<p>Do letter-boxes have metal receptacles fitted to the inside of the slot to contain any fires from lit paper, rags, etc.?</p>		
26.	<p>Are gaps beneath external doors minimised?</p>		
27.	<p>Is the building securely locked overnight and inspections carried out to ensure that waste materials are removed, flammable liquids/gases locked away, valuable items concealed/secured etc.?</p>		

	Guard Services	Y/N	Comments
28.	Are security guards permanently present on the site, i.e. 24 x 7 x 365, or only when the site is vacant, e.g. overnight, weekends, shutdowns, Bank Holidays etc.?		
29.	Have checks been completed to ensure that the procedures of the guarding company comply with industry standards?		
30.	Are the security guards trained, supervised and licensed, e.g. Security Industry Authority (SIA)?		
31.	Have all security guards been appropriately vetted with references verified?		
32.	Are arrangements in place for lone security guards sited at unattended locations to communicate with control centres, including ensuring they are provided with personal safety devices?		
33.	Have security guard patrol routes and patrol verification devices been agreed?		
34.	Have details of their responsibilities been provided to all security guards?		
35.	Do all security guards know what their role is in an emergency situation..... <ul style="list-style-type: none"> • during operational hours? • when the site is vacant? • when they are alone? 		
36.	Are the security guards aware of the whereabouts of any site emergency pack held on the premises, and do they know the location of any relevant isolation points/shut-off valve points etc.?		
37.	Are the security guards informed in advance of visitors to the site?		

	Intruder Alarm Protection and CCTV Surveillance	Y/N	Comments
38.	Have the premises been be fitted with an intruder alarm system and does it comply with BS EN 50131-1?		
39.	Is the supply, installation and maintenance of the intruder alarm undertaken by an alarm company approved by a UKAS-accredited certification body?		
40.	Is activation of the alarm notified, using a secure monitored connection, to an Alarm Receiving Centre (ARC) approved and certified by a UKAS-accredited certification body?		
41.	Has a CCTV camera system been installed and does it comply with BS 8418?		
42.	Does the CCTV system cover vulnerable areas including all site entrances, and is sufficient lighting provided over night to enable images to be clearly viewed?		
43.	Are CCTV images recorded in colour?		

	Waste Control and External Storage	Y/N	Comments
44.	Are external bulk waste material storage areas (containing wheelie bins, waste bins, skips etc.) positioned more than 10m clear of any buildings and at least 2m away from perimeter fences, and are they clear of trees, vegetation, and potential ignition sources?		
45.	Is waste segregated, ensuring incompatible substances are kept apart from each other?		
46.	Has a suitable area of the site been designated for the storage of all combustible waste materials?		
47.	Is waste kept in metal non-combustible containers fitted with self-closing metal lids that are secured/locked when not in use?		
48.	Are precautions in place and additional collections arranged to prevent waste bins/containers being over-filled and over-spilling?		

	Waste Control and External Storage Contd.	Y/N	Comments
49.	Are additional collections arranged and precautions in place to ensure all waste bins/containers are left empty prior to shutdown or holiday periods?		
50.	Are waste bins/containers stored clear of fire escape doors/exit routes and fire points/hydrants?		
51.	Is all waste removed from the building at the end of each shift or at the end of the days work to a designated external remote storage area?		
52.	Are flammable liquids and gases stored separately in proprietary non-combustible and secure containers/tanks, with suitable spillage containment provided, and are volumes kept to a minimum?		
53.	Is all vegetation located near to the premises and around the perimeter of the site, cut-back and maintained to allow a clear view of the site (as this potentially provides both a source of fuel and concealment for individuals)?		

	Automatic Fire Alarms	Y/N	Comments
54.	Has a fire alarm system been installed in the premises which conforms to BS 5839 Part 1:2013 Category P1, or in accordance with the findings of the organisation's arson risk assessment?		
55.	Is the system designed, installed, commissioned and maintained in accordance with a suitable third party certification scheme?		
56.	Does the system have remote signalling to a certificated Alarm Receiving Centre (ARC)?		

	Fire Protection Systems	Y/N	Comments
57.	Is the building's fire compartmentation consistent with the needs of the site?		
58.	Are arrangements in place for fire-stopping during maintenance or refurbishment projects?		
59.	Are an adequate number of portable fire extinguishers provided which are regularly inspected and maintained; and is routine training in their use provided to designated individuals?		
60.	In accordance with the findings of the organisation's arson risk assessment, and if the risk of arson is deemed to be significant, has a remotely monitored automatic sprinkler system conforming to the Loss Prevention Council (LPC) Rules for Automatic Sprinkler Installations 2009 incorporating BS EN 12845 been installed throughout the building?		
61.	Is all fire protection equipment regularly inspected and tested as part of a routine maintenance programme?		

	Vacant Buildings	Y/N	Comments
62.	Have all combustible materials been removed from the building, both internally and externally?		
63.	Have all utilities been isolated, other than those which are required for fire and/or security protection systems and safety systems?		
64.	Have all fuel tanks been drained down and the contents removed?		
65.	Is the property maintained in a good state of repair?		
66.	Are all external points (doors, windows, roof-lights, letter-boxes, etc.) adequately secured and sealed?		
67.	Has consideration been given to installing additional security protection measures, including remotely monitored intruder alarm and CCTV systems, security guarding, etc.?		
68.	Is access to the premises restricted with visits formally recorded?		

	Vacant Buildings Contd.	Y/N	Comments
69.	Are buildings regularly inspected (at least weekly) to check on both internal and external conditions, with formal inspection records maintained? Are all issues noted during these inspections promptly dealt with?		
70.	Additional comments:		

