

Arson Prevention

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Arson attacks are often responsible for more damage than other causes of fire in business premises. Good management, housekeeping and robust security measures are part of an essential loss prevention strategy.



Introduction

Arson is one of the leading causes of fires in commercial premises, accounting for nearly half of all fires attended by the Fire and Rescue services. It's a significant risk to organisations, with insurance claims that can be considerably more expensive than non-arson claims, as most of these incidents occur during the night 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, and causing disruption to the business. Although all properties are exposed to the risks posed by arson, statistics show 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, can reduce the risk.



Assessing the Risk

It is essential that an arson risk assessment for the premises is carried out by a competent person and that a risk management programme is implemented, managed and overseen. This can help to reduce the likelihood and severity of suffering an arson-related incident. The risk assessment should include:

- Identifying the susceptibility of the premises:
 - Is there a history of vandalism, malicious attacks or crime in the area?
 - Are there sections of the premises that are vulnerable, such as poorly lit and out-of-sight areas?
 - What security measures have been implemented, both internally and externally?
- Identifying potential fire hazards:
 - Individuals who may be affected by a fire
 - The presence of combustible materials including waste, flammable liquids, gases, etc.
 - Ignition sources that could start a fire
 - Elements of the building structure that could assist the spread of fire
- Identifying potential arsonists, 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
- Reviewing security and fire protection arrangements to determine whether they are adequate
- Recording and reviewing the assessment regularly

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

Guidance for Controlling the Hazards

Management procedures

Make employees aware of the risk of arson and encourage them to challenge anyone on the premises who isn't displaying identification or who is behaving suspiciously, but only when safe to do so. It is important 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 people who are likely to work unsupervised
- Visitors and contractors, including those working outside normal hours, should be adequately supervised, **ensuring they don't 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
- Temporary staff should receive fire safety awareness training
- Design the premises to avoid the need for individuals to pass through storage areas or similar unmanned sections of the building

Physical security measures

Install a good level of security within buildings, commensurate with the arson risk assessment. This 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 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 that 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. 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 to provide 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, and security and fire protection measures are operational

Guard services

If using the services of contracted security guards, they should hold a security licence issued by an organisation such as the Security Industry Authority (SIA). A permanent 24/7 guarding arrangement is preferable 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
- The issue and return of keys

Intruder alarm protection and CCTV surveillance

To support good 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 - Design, Installation, Commissioning and Maintenance of Detection-Activated Video Surveillance Systems (VSS)

Waste control and external storage

Every year there are significant numbers of fires in buildings or on sites that involve combustible waste materials. Poor storage and 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 for the storage and disposal of these materials.

- Storage of waste materials should be kept to a minimum by avoiding or 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

Installing 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.

- Fire prevention measures include fixed fire suppression systems, pre-action sprinklers, and operation of automatic fire shutters
- The fire alarm system should conform to BS 5839 Part 1: 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, such as LPS 1014 operated by the Loss Prevention Certification Board (LPCB)

Fire protection systems

Some organisations have a higher threat from arson than others and additional protective measures, such as installing an automatic sprinkler protection system, should be considered. Although sprinkler systems cannot prevent arson, they can help to reduce the subsequent damage by suppressing and controlling a fire.

- Based on the result of the arson risk assessment, a remotely monitored automatic sprinkler system should be provided throughout the buildings
- The system should conform to the Loss Prevention Council (LPC) Rules for Automatic Sprinkler Installations 2015 incorporating BS EN 12845
- The system should be designed, installed, commissioned and thereafter inspected, tested and maintained in accordance with the design standard by a company accredited by a suitable third party certification scheme. This should be a company whose name appears in the current 'List of Approved Fire and Security Products and Services' under the LPS 1048 Scheme, 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 that occur in vacant buildings are generally as a result of arson. People responsible for managing these properties should ensure that suitable controls are in place, such as:

- Removing combustible materials from the building, both internally and externally
- Isolating all utilities such as gas, electricity and water, except where required for fire 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, such as doors, windows and roof-lights
- 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

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

- 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. Don't 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.

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For more information please visit:

[Aviva Risk Management Solutions – Specialist Partners](#)

Sources and Useful Links

- [The Regulatory Reform \(Fire Safety\) Order 2005](#)
- [RISCAuthority INFORMER Database](#)

Additional Information

Relevant Loss Prevention Standards include:

- Unoccupied Premises
- Control and Management of Combustible Waste Materials
- Smoke Contamination
- Fire Compartmentation



To find out more, please visit [Aviva Risk Management Solutions](#) or speak to one of our advisors.

Email us at riskadvice@aviva.com or call 0345 366 6666.*

*Calls may be recorded and/or monitored for our joint protection.

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.	<p>Has the arson risk assessment been completed and is it up to date, covering the following areas:</p> <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 need 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.	<p>Are efforts made to maintain good staff relations?</p> <p>During a Managing Change process involving issues such as redundancy and restructure programmes, are arrangements in place to deal with disgruntled employees, site closures, etc.?</p>		

	Management Procedures Contd.	Y/N	Comments
7.	Are new employees vetted and references sought and verified?		
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 that 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, 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 prevention 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.	<p>Is the perimeter fencing deemed high enough (2.4m) and strong enough to deter intruders?</p> <p>Is the fencing in good condition and regularly inspected, with any damage immediately repaired?</p>		
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?		
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.	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?		
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 are secure?</p> <p>Access should also be prevented from surrounding buildings or walls.</p>		
23.	Are external doors, windows, roof-lights and shop fronts adequately secured, with additional protections installed for vulnerable entry points?		
24.	Are all building keys suitably managed, accounted for and audited?		
25.	Do letterboxes have metal receptacles fitted to the inside of the slot to contain any fires from lit paper, rags, etc.?		

	Physical Security Measures Contd.	Y/N	Comments
26.	Are gaps beneath external doors minimised?		
27.	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.?		

	Guard Services	Y/N	Comments
28.	Are security guards permanently present on the site, 24/7 every day, or only when the site is vacant, e.g. overnight, weekends, shutdowns, Bank Holidays?		
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 overnight 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? 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 day's 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? 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 that conforms to BS 5839 Part 1: 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 that are regularly inspected and maintained? 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 been installed throughout the building, conforming to the Loss Prevention Council (LPC) Rules for Automatic Sprinkler Installations 2015 incorporating BS EN 12845?		
61.	Is all fire protection equipment regularly tested, inspected, serviced and maintained in accordance with the requirements of the applicable design standard?		

	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 that 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.?		

	Vacant Buildings	Y/N	Comments
68.	Is access to the premises restricted with visits formally recorded?		
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:		

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