

Loss Prevention Standards – Asset Classes

# Retail Storage of Fireworks

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Guidance on safe storage and sale of fireworks  
in retail premises.



# Retail Storage of Fireworks



## Introduction

Whilst fires involving the storage of fireworks are generally rare, it is important that any retailer is fully aware of the impact that the presence of fireworks will have on their fire precautions. Fireworks are highly combustible and explosive.

The introduction of fireworks into a building increases the fire loading, the ease of ignition and the risk of rapid fire spread. If not correctly managed and appropriately stored, their introduction increases the exposure to life safety, property damage and to the resultant impact on any business activities.



## Legislation and Risk Assessments

The primary fire safety legislation relating to retail premises in England and Wales is the [Regulatory Reform \(Fire Safety\) Order 2005](#), or equivalent legislation in Scotland and Northern Ireland. This stipulates that a suitable and sufficient risk assessment should be undertaken by a competent person, and the risk assessment should be regularly reviewed. It should always consider the additional risks presented by the retail storage and sale of fireworks, to areas occupied by members of the public and staff.

In addition, the new [Explosives Regulations 2014 \(ER 2014\)](#) came into force on 1 October 2014 updating the storage provisions for explosives including fireworks.

ER 2014 consolidated and revoked a number of explosives regulations. It also included withdrawing the following:

- Approved Code of Practice to the Manufacture and Storage of Explosives Regulations 2005 (L139)
- Guidance relating to the security of explosives (HSE Circular 1/2005)
- Guidance on the placing of civil use explosives on the market (L66)

This Loss Prevention Standard refers to Hazard Type 4 fireworks covering most fireworks found in retail premises. Hazard Type 3 fireworks, being used for display purposes, can only be used by professionals and require more stringent storage/handling arrangements. These are not covered in this standard.

Note: It is your responsibility to ensure you are aware of, and comply with, the Explosives Regulations 2014. The licensing authority has the power to prohibit storage of explosives at the site if it believes the site is no longer suitable, and it may also take enforcement action if you are not storing safely.

## Background

The storage and retail sale of fireworks are no longer restricted to the traditional UK Guy Fawkes/Bonfire Night Celebration period in November (November 5<sup>th</sup>). Fireworks are now commonly used for other celebrations including birthdays, New Year, Diwali, Hanukkah or the Chinese New Year. As a result, fireworks can be stocked, sold and obtained all year round.

If you are intending to supply fireworks outside the normal permitted periods, e.g. New Year, Chinese New Year, October 15<sup>th</sup>-November 10<sup>th</sup> and Diwali, you will also need to make a separate application to your local licensing authority for a licence to comply with the [Fireworks Regulations 2004](#).

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## Firework Retailing Periods

The Fireworks Regulations 2004 (SI 2004/1836) apply to anyone selling fireworks or exposing them for sale. If you sell or offer for sale adult fireworks outside certain times of the year, see below, you will need a licence granted under the Fireworks Regulations 2004. This licence is in addition to any licence granted under ER 2014 that allows you to store fireworks:

- Bonfire Night                      October 15<sup>th</sup> to November 10<sup>th</sup>
- New Year                              December 26<sup>th</sup> to December 31<sup>st</sup>
- Chinese New Year                  Day of the Chinese New Year and 3 days immediately before
- Diwali                                  Day of Diwali and 3 days immediately before

## Storage - Registration/License

To operate wholesale or retail premises that store or sell fireworks of up to 2,000 kg (net explosives content) in England, Scotland and Wales, you should be licensed with:

- The Fire Service - West Midlands, Merseyside, Greater Manchester, Tyne and Wear, South Yorkshire and West Yorkshire
- The Trading Standards Department of your local council - anywhere else in the UK

Also, the quantities in the regulations refer to Net Explosive Quantity (NEQ), i.e. the quantity of explosive in the firework and not the gross weight. If not available the NEQ is taken as one quarter the gross weight.

Unless kept for private use it is an offence to keep >5 kg NEQ of fireworks on any premises that have not been registered or licensed.

- Registration is required if storing up to 250 kg of Hazard Type 4 fireworks
- A license is required if storing >250 kg NEQ of fireworks
- A Health and Safety Executive (HSE) license is required if storing >2,000 kg NEQ of fireworks

This covers the total amount on site whether on the shop floor or in storage areas, etc.

Most consumer fireworks are classed as Hazard Type 4, although some, including larger display fireworks may be Hazard Type 3. The designation should be marked on the transport container, and if in doubt the supplier should be contacted.

Licenses for fireworks and other explosives that do not require an explosive certificate may be granted for up to 5 years as the licensing authority determines.

## Sales Area - Storage and Display Arrangements

The approaches taken for the safe display, storage and handling of fireworks in retail and other similar premises (such as cash-and-carry stores) are the same as those taken to ensure the safety of other types of explosives.

Those storing fireworks should identify the safety measures to be taken by carrying out a formal risk assessment and implementing the appropriate measures to control the risks identified. A thorough and detailed risk assessment should consider all potential risks including those to life safety, security, theft, arson, property damage (fire/explosion) and any consequential business impact if an incident occurs.

For additional information, see [Fireworks in shops: Retailers' risk assessment checklist](#) published by the HSE.

Under ER 2014, the quantity of fireworks which are allowed to be stored on a shop floor is determined by the size of the sales area, i.e. where the public have access. If you intend to store or display more than 12.5 kg of fireworks on a shop floor, the licensing authority will require you to submit a floor plan of the sales area.

Sales Area (sq. m)	Maximum Quantity of Fireworks (NEQ)	Sales Area (sq. m)	Maximum Quantity of Fireworks (NEQ)
Up to 20	12.5 kg	Up to 250	45 kg
Up to 40	15 kg	Up to 300	50 kg
Up to 60	20 kg	Up to 350	55 kg
Up to 80	25 kg	Up to 400	60 kg
Up to 100	30 kg	Up to 450	65 kg
Up to 150	35 kg	Up to 500	70 kg
Up to 200	40 kg	Over 500	75 kg

Fireworks on the shop floor should be kept in a designated area well away from sources of ignition, in a display case or storage cupboard or cabinet which should:

- Contain a maximum of 12.5 kg NEQ
- Be designed to protect against:
  - Sparks or other sources of ignition
  - Access by unauthorised persons
- Contain no other goods except any instruction leaflets/safety literature
- Have any lights and/or all electrical fittings within disconnected

Smoking should NOT be allowed anywhere where fireworks are handled, delivered, stored or sold.

Note: While fireworks are on site, all other risk assessments, method statements and permit to work scenarios should consider the increased exposure from their presence.

## General Storage Requirements

If storing fireworks appropriate measures should be taken to:

- Firstly consider how to prevent any fire or explosion from starting
- Limit the extent and mitigate a fire or explosion if it did occur
  - To protect property and business activities
- Protect people in the event of a fire or explosion

As mentioned earlier, an assessment of the risks posed by storing fireworks should be undertaken and formally documented. If there are 5 or more employees then this is a requirement.

All fireworks should be neatly stored in a suitable place with sufficient space for access, selection and stock checking depending on the quantity and type being kept.

Key principles are to ensure that the store, container or cupboard is:

- Suitably water or weather proof
- Designed to ensure that explosives do not come into contact with incompatible and reactive substances
- Used only to keep explosives and tools/implements connected with the keeping of explosives
- Kept clean
  - With steps taken to prevent grit from entering unpackaged explosives

Suitable precautions should be taken to exclude all ignition sources such as matches, smoking materials, portable heaters, grit, rust and other contaminants, electricity, hot work, etc.

Where fireworks are kept in a storage area or away from the sales floor, then the storage should be in:

- An ISO storage container or similar fully enclosed metal structure
- Wooden or ideally normally closed and secured metal storage cabinets
- A building with a robust structural partition, such as a separate room
- A small gauge wire mesh cage or screen to help prevent missiling

The storage area should be located away from other flammable goods and all fireworks should be kept in their closed transport packaging and only opened when needed. Access to the store should be restricted to staff who need to be there.

There should be a fire resisting partition wall between the store and the sales area providing at least 30-minutes Fire Resistance (FR) rating. This rating is primarily for life safety purposes. For property/business protection, this fire resistance should ideally be rated to at least 2-hours.

Any escape routes within any building, including the storage area, should not be impeded by fireworks storage.

While it is not recommended to fight a fireworks related fire, appropriate fully maintained fire extinguishing appliances should be provided.

Ideally any storage or sales area where the values or exposures are high, should be fitted with an automatic fixed fire protection system which is designed and installed in accordance with an internationally recognised standard.

## Storage and Domestic/Sleeping Accommodation

If more than 75 kg of Hazard Type 4 fireworks are kept in a store within or adjoining a building incorporating domestic/sleeping accommodation, suitable steps should be taken to protect the residents of those premises in the event of a fire, such as:

- This should be documented in the risk assessments
- Provision of an automatic fire detection system as a minimum within the building

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- Domestic parts of the building should have access/exit routes that are fire-separated from those used for the fireworks store;
  - Ideally these should be in areas where direct communication is not apparent
- In order to prevent unauthorised access and to help prevent accidental introduction of sources of ignition, the store should be closed-off and secured from the domestic part of the property
- There should be suitable fire separation between the firework's store and the domestic accommodation, e.g. doors, floors, ceilings offering at least 30-minutes fire resistance
- Emergency evacuation plans should be practiced

## External Storage - ISO Containers

The above general principles apply.

Containers should be located away from inhabited buildings, combustible/flammable materials, parked vehicles and public rights of way with distances being incremental with the quantity of fireworks being stored.

Precautions are needed to protect against arson and malicious attack.

Smoking should be prohibited within 10m of the containers.

## Key Action Steps

- Complete a Management of Change pre-approval risk assessment to understand the exposures and mitigation measures needed
- Apply to the Local Authority for the appropriate registration(s)/license(s)
- Read and fully understand the HSE guidance document - '[Storing and selling fireworks safely](#)' INDG407
- Complete appropriate formal risk assessment(s)
  - One of which should use the HSE checklist which accompanies the above guidance document
- Ensure any fire risk assessment(s) and DSEAR (Dangerous Substances and Explosive Atmospheres Regulations 2002) assessments incorporate the hazards presented by fireworks
- Implement additional precautions as necessary
- Ensure all relevant employees are aware of the risk assessments and all have had appropriate formal and recorded training

## Checklist

A generic Retail Storage of Fireworks checklist is presented in Appendix 1 which can be tailored to your own organisation.

## Specialist Partner Solutions

Aviva Risk Management Solutions can offer access to a wide range of risk management products and services via our network of Specialist Partners who are reputable companies offering agreed discounted rates for Aviva customers.

For more information please visit:

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

## Sources and Useful Links

- [The Scottish Government](#) website provides information to help you meet your responsibilities under the Fire (Scotland) Act 2005 and Fire Safety (Scotland) Regulations 2006
- [The Welsh Government](#) website provides information in respect of fire safety
- [Nidirect government services](#) – fireworks
- [National Fire Chiefs Council](#) – fireworks
- [HSE](#) – storing and selling fireworks
- [GOV.UK](#) – Fire safety risk assessment: offices and shops

## Additional Information

Relevant Loss Prevention Standards include:

- Arson Prevention
- Fire Safety Legislation – The Regulatory Reform (Fire Safety) Order 2005
- Hot Work Operations
- Managing Change – Property
- Managing Contractors
- Smoking and the Workplace

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

Email us at [riskadvice@aviva.com](mailto:riskadvice@aviva.com) or call 0345 366 6666.\*

\*The cost of calls to 03 prefixed numbers are charged at national call rates (charges may vary dependent on your network provider) and are usually included in inclusive minute plans from landlines and mobiles. For our joint protection telephone calls may be recorded and/or monitored.

# Appendix 1 - Retail Storage of Fireworks Checklist



Location	
Date	
Completed by (name and signature)	

	Retail Storage of Fireworks	Y/N	Comments
1.	Has the building and contents Insurance Broker and Insurer been notified that the premises are to be used to store and/or sell fireworks?		
2.	Have the Insurers advised of any measures that have to be implemented? Are any policy conditions implemented? Are there mechanisms in place that formally and routinely verify that any conditions continue to be complied with?		
3.	Prior to receipt of any fireworks have formal Management of Change procedures and/or risk assessments been completed? Do these cover: <ul style="list-style-type: none"> <li>• Life safety?</li> <li>• Property damage?</li> <li>• Security?</li> <li>• Business impact?</li> <li>• Exposures and neighbours?</li> </ul>		
4.	Is there a mechanism in place for the findings and mitigation measures arising from any risk assessments to be tracked to completion?		

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	Retail Storage of Fireworks Contd.	Y/N	Comments
5.	Is the total amount of stored fireworks understood and clearly documented?		
6.	Is a nominated individual responsible for the monitoring of the storage and sale of the fireworks?		
7.	If the site is proposing to store >5 kg NEQ of fireworks on the premises, has this been registered or licensed by the appropriate authority?		
8.	Has the local Fire and Rescue Services been formally notified and provided with premises keyholder details?		
9.	Is there a formal Emergency Response plan including clear documentation for the public Fire and Rescue Services?		
10.	Is the Emergency Response plan maintained up to date and practiced?		
11.	Is there a formal Hot Work Management system embedded on site?		
12.	Is there a formal Contractor Management system embedded on site?		
13.	Are there appropriate measures in place to protect against arson and malicious attack?		
14.	Are there appropriate measures in place to protect against intrusion/theft?		

	Retail Storage of Fireworks Contd.	Y/N	Comments
15.	<p>Are suitable precautions taken to exclude possible sources of ignition, such as:</p> <ul style="list-style-type: none"> <li>• Matches/lighters?</li> <li>• Smoking materials?</li> <li>• Portable heaters?</li> <li>• Grit?</li> <li>• Rust?</li> <li>• Other contaminants?</li> <li>• Lithium ion/rechargeable batteries?</li> <li>• Electrical sources?</li> <li>• Hot work?</li> </ul>		
16.	<p>Has awareness training been provided to all employees as to the:</p> <ul style="list-style-type: none"> <li>• Hazards associated with fireworks?</li> <li>• Emergency procedures?</li> </ul>		
17.	<p>Have all employees authorised to access fireworks been formally trained on the hazards, the correct storage arrangements and the correct handling procedures?</p>		
18.	<p>Are fireworks to be stored or stored on the shop floor?</p> <ul style="list-style-type: none"> <li>• If yes, is the quantity stored in line with the Explosive Regulations 2014?</li> <li>• Are they in a suitable storage cupboard or cabinet as described by the regulations?</li> <li>• Are all ignition sources prohibited from the storage cupboard/cabinet(this includes electrical sources)?</li> </ul>		
19.	<p>Are fireworks to be stored or are stored away from the shop floor, in a warehouse or similar?</p> <p>If yes are the fireworks stored in suitable:</p> <ul style="list-style-type: none"> <li>• ISO storage containers or similar fully enclosed metal structures?</li> <li>• Wooden or metal storage cabinets?</li> <li>• Buildings with a robust structural partition, such as a separate fire resistant room?</li> <li>• Small gauge wire mesh cages or behind screens?</li> </ul>		

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	Retail Storage of Fireworks Contd.	Y/N	Comments
20.	<p>Are the fireworks:</p> <ul style="list-style-type: none"> <li>• In a storage area located away from:               <ul style="list-style-type: none"> <li>○ Other flammable goods?</li> <li>○ Incompatible or reactive materials?</li> <li>○ Oxidisers?</li> <li>○ Ignition sources?</li> </ul> </li> <li>• Kept in their closed transport packaging?               <ul style="list-style-type: none"> <li>○ Only opened when needed?</li> </ul> </li> <li>• In a store:               <ul style="list-style-type: none"> <li>○ Where access is restricted to employees who have been trained and appropriate authority to have access?</li> <li>○ With at least 30-mins fire resistance rating for life safety?</li> <li>○ With at least 2-hours fire resistance rating for property conservation?</li> </ul> </li> </ul>		
21.	<p>Are more than 75 kg of Hazard Type 4 fireworks to be stored?</p> <p>If yes, does the building or an adjoining building incorporate any domestic or sleeping type accommodation?</p> <p>If yes, have the following been incorporated to protect the residents of those premises in the event of a fire:</p> <ul style="list-style-type: none"> <li>• Has a comprehensive automatic fire detection system been provided within the shop/store?</li> <li>• Do the domestic areas of the building have access and exit routes that are fire-separated from those used for the fireworks store?</li> <li>• Is the store closed-off and secured away from the domestic part of the property?</li> <li>• <b>Is there suitable fire separation between the fireworks' store and the domestic accommodation, e.g. doors, floors, ceilings, etc. providing at least 30-minutes fire resistance rating?</b></li> </ul>		
22.	<p>Are the premises protected by automatic sprinkler protection designed, installed, inspected, tested and maintained to an internationally recognised standard throughout?</p>		
	Retail Storage of Fireworks Contd.	Y/N	Comments
23.	<p>If the premises are not sprinkler protected, is a comprehensive automatic and manual fire detection alarm system installed which provides coverage in all areas/compartments?</p>		

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	In the UK this would conform to BS 5839 Part 1: Category P1/M.		
24.	Is the fire detection alarm system designed, commissioned and maintained in accordance with a suitable third party certification scheme?		
25.	Does the fire detection alarm system have remote signalling to a certified Alarm Receiving Centre?		
26.	After receipt of the fireworks and the ongoing operations, is the basis of the risk assessments and any mitigation measures in place regularly revisited and reviewed?  Are any changes to these formally recorded?		
27.	Additional comments:		

## Please Note

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## LOSS PREVENTION STANDARDS