

Fire Safety Guidance Note: Fireworks and Firework Displays

GN07

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The London Fire Commissioner (the Commissioner) is the fire and rescue authority for London. The Commissioner is responsible for enforcing the Regulatory Reform (Fire Safety) Order 2005) (The Order).

This Guidance Note provides fire safety advice in respect of the legal requirements and safety standards for fireworks/firework displays for both residential and commercial properties.

This Note is one of a series produced by London Fire Brigade (LFB) to provide advice on various aspects of fire safety. If you require any further guidance on the advice given or require advice on another topic please visit your local Fire Safety Office, telephone 020 8555 1200 and ask for the nearest Fire Safety Office, or visit LFB web site at http://www.london-fire.gov.uk.

1 Introduction

1.1 Firework displays, whether private or public, should be enjoyable occasions for all concerned. In the interests of safety, it is recommended that displays should be organised and produced by professionally competent operators. Events, whether at home or for a private audience i.e. sports clubs, schools etc., can be both enjoyable and safe provided that the organisers take the necessary safety precautions and that the hazards associated with fireworks and bonfires are not underestimated.

2 Content

- 2.1 The information provided in this Guidance Note has, in part, been adapted from several guidance documents produced by Government Departments and other organisations. Please also refer to Section 10: Publications and Other Guidance Information Available of this document. Advice on Fireworks is available on our website at: Fireworks | London Fire Brigade (london-fire.gov.uk). There are also a several of other websites that give information on this subject such as those listed below:
 - Consumer Information British Fireworks Association
 - Firework safety RoSPA
 - Fireworks: the law GOV.UK (www.gov.uk)
 - HSE Explosives Fireworks
 - Firework Categories & Safety Distances UKFR

3 Firework Safety

- 3.1 If using fireworks always follow the advice below:
 - Never play with fireworks, they are explosives and can hurt you.
 - Only buy fireworks that carry the CE mark from a licensed retailer.
 - Only adults should light or hold fireworks.
 - When you are watching fireworks, stand well back.
 - Keep fireworks in a closed box.
 - Follow the instructions on each firework.
 - Light fireworks at arm's length, using a taper.
 - Never go near a firework that has been lit. Even if it hasn't gone off, it could still explode.
 - Fireworks may frighten animals so keep your pets safely indoors.
 - Never put fireworks in your pocket or throw them.
 - Always supervise children around fireworks.

- Light sparklers one at a time, always wear gloves and hold them at arm's length. Never give sparklers to children under the age of 5. When your sparkler goes out, DON'T TOUCH IT, it could still burn you, so put the sparkler hot end down in a bucket of water made ready for this purpose.
- Do not drink alcohol when and if setting off fireworks.

4 Firework Displays

4.1 These tips are intended for those organisers who are mounting firework displays for the general public. There is also important information about your responsibilities to the public and to your staff.

Planning Ahead

- Running a display takes a lot of work, so ensure you plan ahead.
- Set up a committee whose members can each take responsibility for a particular task (including one person to oversee all safety arrangements).
- Be clear on who will do what and when.
- Be sure each member has a photocopy of this guide and follows its advice.
- If possible, try to recruit at least one person with previous experience of firework displays.

Contacting the Right People

- It is very important to keep the authorities informed of your plans.
- Bonfire night, Diwali, Chinese New Year and New Year are always a busy times, so please give the organisations plenty of warning about your plans.
- You should contact and give information to:
 - The Fire Brigade.
 - The Police.
 - First Aid Service.
 - Local Authority.

Be Prepared

- 4.2 As well as liaising with the Local Authority, Police, Fire Brigade and First Aid organisations, you or your appropriate team member should:
 - Arrange for your fireworks to be delivered and stored securely (and circulate the manufacturer's general instructions to your team).
 - Warn your neighbours and any local farmers in advance so they can keep animals and pets indoors and take other necessary precautions.
 - Arrange for you and your team to be trained in the various tasks for the night, including all emergency drills.
 - Arrange for first aid posts to be staffed by qualified people. Borrow or hire special clothing (bibs, jackets etc.) to identify you and your team on the night.
 - Arrange some form of public address system as a safety measure, not just for commentary.
 A loud hailer will do as a bare minimum.
 - Arrange for fire extinguishers, buckets of water, buckets of sand and metal litter bins to be available on the night.
 - Check that plenty of electric torches will be available on the night, with full batteries.
 - Publicise the fact that spectators are not allowed to bring their own fireworks (including sparklers) and will not be admitted if they do so.

- Prepare all necessary signage.
- Make sure that you'll have enough people available to help you on the night (including cover for illness).
- Draw up a detailed checklist of tasks and indicate who is to be responsible for each one.
- Check whether you are adequately insured to cover any firework-related injuries to those present at the display.
- Vet any traders you intend to allow on the site.

Picking the Right Location

- 4.3 You should choose a large, clear, and well-mown area free from obstructions, well away from any buildings, trees, and hazards like overhead cables, with as many safe entrances and exits as possible. These must be away from the firing area and dropping zone.
- 4.4 Make sure that all entrances are well lit, clearly signposted and kept free from obstructions. Clear away any undergrowth or very long grass. Have plenty of (metal) litter bins around the site. Make sure you can cater properly for disabled spectators. Watch out for any animals likely to be housed nearby.
 - Allow at least 50m x 20m for your firing area.
 - Beyond this you will need a dropping zone for spent fireworks of 100m x 50m in the downwind direction.
 - Spectators should be kept back on the opposite side to the dropping zone at least 25m from the firing area.
- 4.5 Falling fireworks can cause damage, so site any designated car parking well away from your display area and dropping zone and upwind of the display. Signpost any car park clearly and make sure that the entrance is quite separate from pedestrian access. Do not permit parking anywhere else.

Keeping in Control

- 4.6 Proper crowd control is essential and needs good planning.
 - Arrange for some stewards to be responsible for just this at least one steward for every 250 spectators. Their job won't be finished until the display is over, the site is cleared and made safe. Your stewards should be easy to identify, perhaps with fluorescent bibs or jackets.
 - Be certain that your team know what to do in an emergency and have practised safety drills.
 - Spectators must not be allowed into your display area. If they do encroach, stop the display immediately. Prepare and erect signs to clearly show the area.
 - Beware of overcrowding seek advice from the police and follow it.
 - None of the organisers should drink alcoholic drinks before or during the display.
 - Do not allow spectators to enter the site with their own fireworks even sparklers. Make sure that there are signs explaining this at all entrances and in publicity prior to the display.

Experience Counts

- Always take great care. Plan your display in advance, make sure you know which fireworks are
 going to be let off in what order. Take the fireworks from a secure container only when they
 are to be let off.
- Recruit people with previous experience of firework displays. Have as few people as possible involved with the fireworks.

- Do not allow smoking by your team when fireworks are being handled, or at any time during the display.
- Unpack fireworks with great care and well away from any open fire, naked flame, or flammable material. Remember that they are fragile and can easily be broken. Keep fireworks in a secure box which is kept closed.
- Before lighting any firework, read the instructions on it carefully (by torchlight).
- Make sure that the wind blows away from spectators. The display should be angled away from spectators.
- For lighting display-type fireworks, a device called a Portfire is often provided by the manufacturer. Use Portfires when available and always light fireworks at arm's length. Keep unused Portfires in a secure box and never carry them in pockets.
- Alternative forms of safety lighters, such as a slow match (also called match cord, is a slow-burning cord or twine fuse) are often available.
- Never use matches or lighters for lighting fireworks at a display. If any firework fails to go off, don't go back to it. It could still be live and could ignite near you. Half an hour is the absolute minimum time to wait before you consider approaching it again.
- A sudden change of wind could cause aerial fireworks to fall dangerously among spectators. In very windy weather, you should consider putting off the display altogether.

Bonfires Need Planning Too

- 4.7 Bonfires need a lot of organising and can be a hazard. Many displays are a great success without one.
 - If, after careful consideration, you do decide to have a bonfire, make one person responsible for it, from early planning to final clearing up, and make sure it is the appropriate size for the space you have.
 - Do not site it too near your display or firework storage area and don't site it anywhere near fences, trees or other combustible materials.
 - Never use flammable liquids such as petrol to start a bonfire as this can result in uncontrolled spread of fire or explosion.
 - Check immediately before lighting that there is no animal or even a young child hidden inside.
 - Never put fireworks on a bonfire, even if they are duds.
 - Do not burn dangerous rubbish (e.g. aerosols, paint tins or foam-filled furniture).
 - Remove any rubbish from the bonfire area in advance so there is nothing that can be thrown onto the fire on the night.

After the Event

- 4.8 The work for you and your team does not finish when the last firework goes off:
 - Spectators need to be cleared safely from the site.
 - The bonfire needs to be put out completely.
 - Spent firework cases must be gathered. Look for used fireworks with a torch and use tongs or some other suitable tool and wear appropriate hand protection.
 - Do not allow any children to collect firework cases.
 - If any fireworks look as if they have not ignited after at least half an hour, soak them in a bucket of water

5 Fireworks Regulations 2004 as amended by the Fireworks (Amendment) Regulations 2004

5.1 These Regulations impose the following restrictions:

Curfew

5.2 The curfew prohibits persons from using adult fireworks (anything apart from party poppers or caps) during night hours (11pm to 7am). Exceptions allow use until 1am on the nights of Chinese New Year, Diwali, New Years Eve, and until midnight on Bonfire night. There is also an exception for the purposes of local authority firework displays national public celebrations or national commemorative events.

Noise

5.3 The supply, purchase or possession of a category F3 firework that has a noise level exceeding 120 decibels is banned.

Notices

5.4 Suppliers of adult fireworks must display a notice stating that it is a criminal offence to supply adult fireworks to those under the age of 18, and for those under 18 to possess such fireworks. Fireworks suppliers' must provide the local licensing authority, in London the Trading Standards department for the local Borough or City of London, with information about fireworks in circumstances where the total net explosive content of fireworks supplied in a single transaction exceeds 50 kilograms.

Licensing (see also Section 9- Storage of Fireworks)

- 5.5 Those suppliers intending to supply fireworks to the public outside the traditional selling periods (i.e., all year round) are required to hold a licence. Traditional periods when it is permissible to sell fireworks without a licence are:
 - November 5 (from 15th October to 10 November)
 - New Year (from December 26th to 31st)
 - Chinese New Year (on the first day of the Chinese New Year and the 3 days immediately preceding it)
 - Diwali (on the day of Diwali and the 3 days immediately preceding it)

6 The Pyrotechnic Articles (Safety) Regulations 2015

6.1 The Regulations set out key prohibitions on the supply of fireworks and other pyrotechnic articles such that category F1 fireworks can only be supplied to persons of 16 years or older. Category F2 and F3 fireworks, category T1 theatrical pyrotechnic articles and category P1 pyrotechnic articles can only be supplied to persons of 18 years or older. Category F4 fireworks, category T2 theatrical pyrotechnic articles and P2 pyrotechnic articles can only be supplied to persons with specialist knowledge (see Regulation 31 and Schedule 4 of the Regulations available here: The Pyrotechnic Articles (Safety) Regulations 2015 (legislation.gov.uk). As amended by the Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019 and the Product Safety and Metrology etc. (Amendment) Regulations 2024

7 Selling Fireworks

- 7.1 If you sell fireworks, you have certain obligations to the public and your staff:
 - You must register and obtain a licence to store fireworks (see paragraph 5.5 above)
 - Store fireworks safely
 - Adult fireworks, Category F2, F3, T1 and P1 must not be sold to people under the age of 18, although Category F1 fireworks can be sold to people over the age of 16. Category F1 fireworks are fireworks which present a very low hazard and negligible noise level, and which are intended for use in confined areas, including fireworks which are intended for use inside domestic buildings (see * in paragraph 7.2). Christmas crackers must not be sold to anyone under the age of 12
 - Know and understand the fire plan and fire drill
 - You must display a sign where fireworks are supplied or exposed for supply
 - Keep all fireworks in a dry place.
 - Label all containers 'Fireworks-Highly Flammable' (and always keep these containers closed).
 - Do not allow any smoking anywhere near fireworks being displayed or sold. Put up 'No Smoking' notices.
 - Unplug any electrical fitting that is inside a display case containing fireworks.
 - Never let customers handle any fireworks while they are choosing.

7.2 It is illegal to:

- Sell adult* fireworks to anyone under the age of 18 or.
- Possess adult* fireworks in a public place.
- Throw or discharge a firework in a street or public place.
- * (Any firework except for a cap, cracker snap, novelty matches, party poppers, serpents, and throwdowns)

8 Disposal of Fireworks

- 8.1 Advice is contained in the National Fire Chiefs Council (NFCC) guidance The Safe Disposal of Damaged Fireworks, regarding the disposal of fireworks across separate groups. The guidance relates to consumer fireworks (i.e. those that are to be supplied to members of the public) that have become damaged and which are leaking explosive composition or have partially functioned. This guidance has been prepared principally for retailers and those who might need to deal with damaged fireworks.
- 8.2 It should be noted that the safest way of dealing with a firework, that is complete and undamaged, is to function it in accordance with the instructions provided with the firework.
- 8.3 The Guidance 'copies out' parts of differing Explosives law, for example, that which gives advice on the Explosives, The Explosives Regulations 2014, where it states that, 'Any person who discards or disposes of explosives or explosive-contaminated items must ensure, so far as reasonably practicable, that they are discarded, or disposed of safely'.
- 8.4 The Guidance continues by giving advice to the Public, Retailers and Wholesalers regarding disposal of fireworks. This advice is copied below.
- 8.5 If it has been determined that placing in water for a specific period of time will render the firework non-explosive, even after the firework has dried out and there is no gas generation or self-heating during or after the drowning, then subsequent disposal of the soaked firework with domestic rubbish may be an appropriate action for the general public to take.

- 8.6 Any person who discards or disposes of explosives or explosive contaminated items must ensure, so far as reasonably practicable, that they are discarded or disposed of safely Regulation 28 (1)
- 8.7 Retailers and others at work should be advised that even if a pyrotechnic article has been treated to render it non-explosive, any residual chemicals may render it hazardous waste and appropriate disposal of the residue may be required. This may include the sending/transporting of the treated firework residue to an appropriate disposal site.
- 8.8 Wholesalers should seek advice on the safe disposal of damaged fireworks(s) directly from the supplier, manufacturer, or importer.

9 Storage of Fireworks

- 9.1 The Explosives Regulations 2014 and the Pyrotechnics Articles (Safety) Regulations 2015 as amended by the Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019 and the Product Safety and Metrology etc. (Amendment) Regulations 2024 state that if you store fireworks, you will require a licence from the local authority (London Borough) Trading Standards office. The licence is granted to a person (or company) and not to the site.
- 9.2 A licence is required if storing:
 - Up to 250kg of Hazard Type F4
 - Up to 100kg of a combination of Hazard Type F3 and F4
 - Up to a 100kg of Hazard Type F3

(This includes both the amount held on the shop floor and elsewhere in the premises).

9.3 Most fireworks in retail premises are Hazard Type F4, but if in doubt please contact your supplier. The quantities are often marked on the explosives outer packaging. If storing large quantities of fireworks (e.g. between 250kg and 2000kg of Hazard Type F4 fireworks) you need seek further advice from the local Trading Standards office.

10 Bibliography

- 10.1 Detailed guidance may be obtained from the following bibliography. You can also obtain fire safety advice on other subjects by visiting the London Fire Brigade's website at www.londonfire.gov.uk.
- 10.2 The publications can be obtained from the following addresses:-

AVAILABLE FROM	TITLE
HSE Books	Giving your own firework display: how to run and
www.hse.gov.uk	fire it safely.
https://www.hse.gov.uk/explosives/fireworks	ISBN 97807 1766 1626
The Stationery Office (Mail, Telephone, Fax & Internet Orders)	Firework Legislation
internet Orders)	
TSO Orders/Post Cash Dept	Fire safety at open air events and venues.
PO Box 29	(This guide can also be downloaded free of charge
Norwich	from:
NR3 1GN	https://www.gov.uk/government/collections/fire-
Email: customer.services@tso.co.uk *	safety-law-and-guidance-documents-for-business)
Tel: +44 (0)333 202 5070	
Text tel: <u>+44 (0)333 202 5077</u>	
Twitter: @TSO_Publishers	

Web: <u>www.tso.co.uk</u>	
British Standards Institution (Sales)	British Standards available on several fire safety
389 Chiswick High Road	related subjects.
London, W4 4AL	
Telephone: 0345 080 9000	
https://www.bsigroup.com/en-GB/contact-us/	
Web: https://www.bsigroup.com/en-GB/	
Royal Society for the Prevention of Accidents	Firework Safety Code
(RoSPA)	Retailers guide: Selling fireworks
https://www.rospa.com/Home-	Safe and successful firework displays
Safety/Advice/Fireworks-Safety	Guidance on the Pyrotechnic Articles (Safety) Regulations 2010, issued July 2013
National Fire Chiefs Council	NFCC Guidance 2016-12 The Safe Disposal of
West Midlands Fire Service HQ	Damaged Fireworks
99 Vauxhall Road	
Birmingham	
B7 4HW	
https://www.nationalfirechiefs.org.uk/Fireworks	

The above publications are current at the time of preparation of this Guidance Note (see date in footer).

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