

# **CHILDREN'S SERVICE**

## **Local Code of Practice 13**

### **Safety at Firework Displays**

**Revised     August 2003**

<b>Author:</b>	<b>Peter Dempsey</b>
<b>Service:</b>	<b>Resources</b>
<b>Division</b>	<b>Health &amp; Safety Unit</b>
<b>Intended Target Group:</b>	<b>Educational Establishments</b>
<b>Issued:</b>	<b>1998</b>
<b>Last Reviewed:</b>	<b>August 2003</b>

**Children's Service  
Local Code of Practice 13  
Safety at Firework Displays**

**Introduction:**

Public firework displays are becoming more popular because they encourage safety, but are only as safe as the organisers make them.

Organisers of public and semi public displays should be aware of the requirements of the Health & safety at Work Act, which applies not only to those directly involved but also to the safety of the members of public.

This Local Code of Practice contains basic guidance to organisers. Compliance with it is not necessarily sufficient to preclude every eventuality.

**Before the display:**

Read the local code of practice. It contains basic rules on accident prevention: it is not exhaustive. Please contact the Health & Safety Unit if you require additional information.

Before agreeing to a display at your premises, notify the Health & Safety Unit.

Subject to all approvals, check that you are indemnified against civil liability.

Set up a small organising committee with one member given full time responsibility for safety arrangements before, during and after the display. It is recommended that help or support is obtained from at least one person with experience of firework displays.

Each member of the committee should have clearly defined duties and have a copy of the local code of practice.

**Space:**

A space, at least half the size of a football pitch should be designated for the display.

The display area should be sited so that spectators stand with their backs to the prevailing wind. An area roughly the same size as the display area at the back of the display site should be kept clear to act as a dropping zone for the spent fireworks. The area from which the fireworks are let off, must be kept clear during the display.

**Barriers:**

Areas that are out of bounds, should be separated by strong and adequate barriers.

**Site:**

Displays should be kept well clear of buildings, trees and hazards like overhead electricity and telephone cables

Undergrowth or long grass should be cleared, prior to the display.

**Access and Egress:**

The site chosen should have as many entrances and exits as possible, particularly if a large crowd is expected. Exit and entrances should be well lit, clearly marked and kept free from any obstructions.

**Parking:**

If providing parking on site, consider the location of the parking area, to avoid damage caused by falling rockets. Ensure that vehicles are parked well away from the display area and if possible upwind. No parking should be allowed outside the allocated parking area.

Access to the parking should be clearly signposted and access to it should be separate from the pedestrian access to the site.

**Rubbish Bins:**

Metal litter bins should be provided and arrangements made for them to be emptied, once the firework display has finished

**Advance Precautions:**

***Inform the emergency services:***

Ensure that the fire brigade, police and first aid organisations are informed of the proposed display well in advance and maintain close contact with them throughout the preparation period of the event. Seek their advice that the planned arrangements are indeed adequate.

***Fire Precautions:***

Access to fire extinguisher and supplies of water and sand should be readily available. Fire appliances should be in good working order and stewards should receive training in their safe use

***First Aid:***

First aid points should be established and manned by qualified personnel. First aid facilities should be clearly sign posted.

***Storage of fireworks:***

Fireworks will probably be delivered to the site in advance of the event. Advice should be sought from the local authority on correct storage. The storage of large quantities may require a licence.

**The Display:**

***Handling of the fireworks:***

The number of people directly involved in handling the fireworks should be restricted, the fewer, the safer. If possible helpers, should have previous experience of firework displays. Each helper should be issued with a reasonably powerful torch

***Smoking***

No smoking should be permitted when handling the fireworks or at any time during the display

Fireworks should be unpacked carefully, away from open fires and flammable materials. The fireworks should be kept separate from their packaging and care taken to avoid tearing or breaking the fireworks as they are unpacked.

***Containers:***

Once removed from their packaging, the fireworks should be placed in a metal or wooden container which must be kept closed at all times. The instructions on each firework should be read carefully.

***Lighting the fireworks***

The fireworks should be lit at arm's length. All aerial fireworks, such as rockets must be angled away from spectators. They should never be fired over the heads of the spectators. Fireworks for re-loading must be kept in the container which must be kept closed after each firework has been taken out.

**Portfire:**

The lighting of display fireworks is achieved by a device called a portfire, which is usually provided by the manufacturer. Only this should be used, these should not be carried in pockets but kept in a container.

**Use of metal tubes to support fireworks**

Only plastic tubes which, should the firework explode unexpectedly, will not burst. Tubing should be made of non brittle plastics and be designed to withstand internal pressure. E.g pipe made for water or gas supplies from high density polyethylene.

The tube used should have a diameter that will provide the required support to the firework without holding it too tightly. A snug tube may damage the firework when it is inserted and may increase the severity of a misfire. Where any support is attached to a stake or frame, attach it on the side away from spectators so that should an explosion occur the effects will tend to be projected away from the spectators.

Always position the fireworks as far as possible from spectators and at least at the manufacturers recommended minimum distance. Further guidance on minimum safety distances can be obtained in the HSE publication A guide to safety for firework display organisers and operators (HSG 123)

**Misfires:**

If a firework fails to go off, under no circumstances should the person lighting the fireworks return to re light it, as the firework may still be live and may go off unexpectedly.

**Wind:**

Consideration should be given to a sudden change in wind direction, which may cause sparks and spent rockets to fall among spectators, or for smoke to blot out the display. In very windy weather it might be better to postpone for the display to another date.

**Spectators:****Crowd Control:**

Good arrangements for the control of crowds are essential to a successful display. Arrangements should be made well in advance for an adequate number of stewards to be responsible solely for the management of the spectators.

At least 2 stewards should be available for every 500 spectators. Stewards should be clearly identifiable by means of high visibility jackets/waistcoats and should be on constant watch for emergencies.

It is essential that stewards remain in control until the end of the display and to ensure that spectators cannot access areas out of bounds until the whole site has been made safe.

The stewards should not allow overcrowding, and in the event of any spectators breaking through into the display area, the display should be stopped immediately.

**Personal Fireworks**

Spectators should be reminded not to bring their own fireworks to the display. Notices should be published and displayed in advance, and placed at all the site entrances.

**Emergency Procedures:**

All staff should be fully briefed about the procedures to be followed if it should become necessary to clear the site. A procedure for calling the Police, Fire or Ambulance services. A form of public address system should be organised to improve communication with the crowd. Helpers should be aware of the location of the nearest telephone.

**Bonfires:**

Bonfires can be a hazard and may detract from the firework display. If a bonfire is to be built, ensure that it is located well away from the display area. Under no circumstances should the bonfire be lit before the firework display, as sparks may stray into the display area. Spent fireworks must not be discarded onto the bonfire.

**Lighting:**

One person should be given responsibility for the bonfire. Under no circumstances should flammable liquids such as paraffin or petrol be used to light the fire. The bonfire should not be constructed with dangerous rubbish such as foam based furniture, pressurised containers, tins of paint or bottles.

Before lighting the fire, the construction should be given one last check to ensure that it has not been occupied by children or animals.

**After the display:**

Wearing leather gloves ensure that all the spent fireworks are carefully collected up, using tongs or a similar implement. If any have failed to go off, douse them in a bucket of water. Any aerial shells should be doused prior to disposal.

Litter bins should be emptied and checks made to ensure that the bonfire has been completely extinguished before helpers/stewards leave the site.

**Firework Display Safety Checklist**

ITEM	OBSERVATION	ACTION TAKEN
1.0	Before the display check the following:	
1.1	Have you notified the health & safety unit	
1.2	and obtained approval from the head of service to hold the event on council premises	
1.3	Have you informed the fire brigade, police	
1.4	and arranged attendance by a first aid organisation	
1.5	Have you prepared emergency procedures. If required will emergency services be able to locate the venue?	
1.6	Have you allocated sufficient space (minimum 55m x 45m) within which	

	the display will take place	
1.7	Will spectators be kept at least 30m away from the fireworks, is the area clearly defined by rope/barriers	
1.8	Are fire extinguishers, buckets of water, sand and metal litter bins available for use?	
1.9	Have you identified sufficient stewards, can they be easily identified?	
1.10	Are entrances and exits clearly marked and kept free from obstruction?	
1.11	Are stewards fully briefed in emergency procedures. Have they received training in the safe use of fire extinguishers?	
1.12	Are helpers, who will be lighting fireworks given an opportunity to read instructions in advance and given a copy of the local code of practice.	
1.13	Is a bonfire sited well away from the display area and fenced off for the safety of spectators	
1.14	Are fireworks securely stored in a metal or wooden box	
1.15	Have visitors been advised, not to bring their own fireworks. Are notices displayed to remind visitors at all entrances.	