

**CHESHIRE FIRE SERVICE  
FIRE SAFETY GUIDANCE NOTE NUMBER 30  
SAFETY AT BONFIRE DISPLAYS  
ADVICE TO ORGANISERS OF PUBLIC OR SEMI-PUBLIC EVENTS**

The aim of this guidance is to help organisers of public or semi-public\* bonfire displays to hold a safe event, although many of the principles will also be useful for smaller displays. It is based on existing advice from a number of fire authorities and should also be useful for similar events, e.g. camping, beach parties, etc. Further advice can be obtained from your local fire Service.

\* Semi-public means, for example, in the back garden of a public house.

**BEFORE THE DISPLAY**

**An organising committee**

1. It is important to plan a bonfire display well ahead and to involve the organisations listed in paragraph 3 below as early as possible. One way of doing this is to set up an organising committee where each member has responsibility for a particular task, with one person in charge of the safety arrangements. If possible, at least one member of the committee should have previous experience of organising a bonfire display, and each member's duties should be clearly defined and understood. These duties will include:-
  - ensuring that the bonfire is built safely;
  - keeping the public at a safe distance;
  - making sure that the bonfire is extinguished safely; and
  - making sure that there are suitable phones in place for emergency use and calling the emergency services, if necessary.
2. The organiser of the event should also ensure that there is adequate insurance to cover personal injury and damage. Any stalls or other traders on site should have their own insurance.

**Who to consult/inform**

3. The following organisations should be consulted and given details of the event (particularly the place, date and time) as early as possible:-
  - the local fire Service;
  - the police;
  - the local council (Environmental Health Services);
  - an appropriate first aid organisation (to provide cover for burn injuries etc); and
  - the local media.

In some locations it may be helpful to warn other people, e.g. farmers on nearby farms or any other residential, commercial or industrial premises which may be affected.

**Stewarding**

4. For the event to run safely, it is important to have enough stewards and for them to be suitably trained by a competent person. At a public event, the usual ratio is 1 steward to every 250 (or part of 250) people present, but more stewards may be needed to cover each entrance/exit or to carry out the duties in paragraph 5 below. The actual number should be agreed in advance with the police and the local council.
5. Organisers should carefully consider what they will need the stewards to do. Duties may include:-

- acting as car park attendants;
  - providing information;
  - monitoring the bonfire area;
  - keeping spectators behind barriers;
  - ensuring that nothing is thrown onto the bonfire and that it does not spread;
  - managing the public (particularly if alcohol is allowed);
  - calling and liaising with the emergency services;
  - collecting rubbish;
  - clearing up after the bonfire; and
  - seeing that the bonfire is extinguished.
6. Stewards should be over 18 years of age. They should be readily identifiable, e.g. by wearing a fluorescent jacket, and should be constantly watching for problems in the crowd - especially disorderly behaviour or emergencies. Stewards should know who is in charge of the event and should have a means of contacting them, such as a two-way radio. They should also be aware of the location of phones for emergency use. Stewards should remain until the event is over and ensure that the site is made safe.

#### Access and means of escape

7. The site should have a suitable entrance (or entrances) for emergency vehicles which should be agreed with the emergency services and kept clear of obstruction until the event is over. Emergency vehicles attending the site should be met by the person in charge of safety or a senior steward.
8. In enclosed areas (e.g. those with a fence), sufficient entrances and exits of adequate width (including emergency exits) should be provided to allow spectators to enter in an orderly manner and to leave easily at the end of the display. The needs of any spectators with disabilities should also be considered.

#### Artificial Lighting

9. If there is no local lighting, sufficient lamps should be provided at all entrances and exits so that people can arrive and leave safely. The organiser should also provide each committee member and steward with a torch so that they can guide the crowd.

#### Warning Signal

10. Organisers and stewards should have a pre-arranged coded signal to warn them that an emergency has developed and that help is required. The signal should be audible throughout the site but it should not cause panic amongst the spectators. At larger events a public address system may be used, and at smaller displays loudhailers could be used.

#### Firefighting Equipment

11. There should be adequate firefighting equipment to hand so that if the bonfire suddenly flares up and causes concern it can be dampened down quickly. This could consist of some or all of the following, depending on the advice from the Fire Authority:-
- 2 x 9 litre water fire extinguishers;
  - a hose (if mains water supply is available);
  - buckets of water or sand;
  - fire-beaters; and
  - a fire blanket.

12. If this equipment is going to be used by stewards, they should receive suitable training before the event starts. The extinguishers may also be used for dealing with any small fires caused by flying brands and sparks.

#### Siting

13. Ideally, the bonfire should be sited in a clear unenclosed space. It should be at a safe distance (preferably no less than 18 metres) from buildings, trees, wooden fences, overhead cables, car parking areas or firework displays, which have already been set up. Where there is less space (e.g. in a pub garden), the organiser is advised to consult the fire authority.
14. The organiser should make sure that any combustible materials nearby - such as stacks of timber, hay, straw, etc. - cannot be set alight accidentally or by people behaving irresponsibly. The layout of the area should also take the direction of the wind into account so that the bonfire does not blow towards the spectators and sparks are not carried towards any combustible materials.
15. The bonfire should be built in an area, which has been cleared of undergrowth and where any surrounding grass has been cut short. In dry weather, the site should also be dampened down. The top layer of turf should be removed and stored away from the bonfire so that it can be replaced when the site is cold. Any debris left over from preparing the site should also be placed well away from the bonfire. Bonfires should not be built on peat, as peat fires can spread underground and emerge some distance away.
16. The bonfire should be carefully guarded before the event so that it cannot be set alight deliberately and to prevent children or animals using it as a den or shelter.

#### Construction

17. The bonfire should not contain any potentially hazardous materials which may explode or give off toxic fumes, such as:-
  - aerosols;
  - batteries;
  - bottles;
  - foam-filled furniture; and
  - tins of paint.

Tyres should not be used as they produce large amounts of black smoke and can roll off the bonfire when alight. Also, materials producing light ash that could blow about, such as corrugated cardboard, are unsuitable for burning.

18. The bonfire should be kept to a manageable size and the maximum height should not normally exceed 6 metres (preferably no more than 3 metres at semi-public events). It should be evenly built so that it collapses inwards as it burns. There should also be a suitable barrier around the bonfire at a distance of no less than 1½ times the height of the bonfire so that spectators will be standing far enough away.

#### Weather

19. The organiser will need to make plans in case of bad weather, including what to do if the bonfire cannot go ahead. Rain can dampen down the bonfire and fill the area with smoke, and can also encourage the use of accelerants (such as petrol), which must be avoided. Strong winds can result in flying brands from the bonfire reaching greater distances, in which case the barriers around the bonfire may need to be removed further back.

#### AT THE DISPLAY

### Lighting the Bonfire

20. The display should start and finish at the advertised times. The bonfire should not normally be lit before any firework display unless the firework display is sufficiently far away to ensure that stray sparks from the bonfire cannot fall into the firework area.
21. The bonfire should be supervised by a competent person, whose responsibilities will include checking before the bonfire is lit that its construction is still sound, that there are no children or animals inside, and that hazardous items such as aerosols, fireworks, etc. have not been thrown onto it. The bonfire should not be lit by children or left unattended, and nothing should be cooked on it.
22. Accelerants such as petrol, diesel, methylated spirit or white spirit should never be poured onto the bonfire to light it or revive it. Such substances can cause a bonfire to flare up unexpectedly, or can cause an explosion from a build-up of their fumes, or the steam of liquid (if poured) can burn back to the person holding the container.
23. Damp bonfires should be lit by using dry kindling, e.g. newspaper, sacking, cardboard, empty wooden boxes, etc. These materials should be placed inside the bonfire and will help it to burn from the inside out, drying out any damp materials stacked on the outside. Fuses can be made out of long, twisted rags soaked in used engine oil or paraffin. They should be trailed from the inside of the bonfire to a pre-determined lighting point outside. Alternatively, domestic firefighters can be used.

### Safety during the display

24. Suitable clothing should be worn by anyone who has to go near the bonfire. For example, a substantial overcoat of wool or other material of low flammability, a hood (if provided), long trousers (worn over any boots) and gloves. Long scarves should not be allowed to trail.
25. As the bonfire progresses, spectators should be able to move away freely from smoke, sparks and heat (if it becomes uncomfortable) without being trapped by the crowd.

### AFTER THE DISPLAY

#### Putting out the bonfire

26. At the end of the event, the bonfire should be extinguished with water and it should not be left until the steward responsible and the person in charge of safety are certain that it is out.

#### Signing off

27. If any emergency organisations are present at the display (fire Service, police, first aid, etc), the organiser should "sign off" with them at the end of the event.

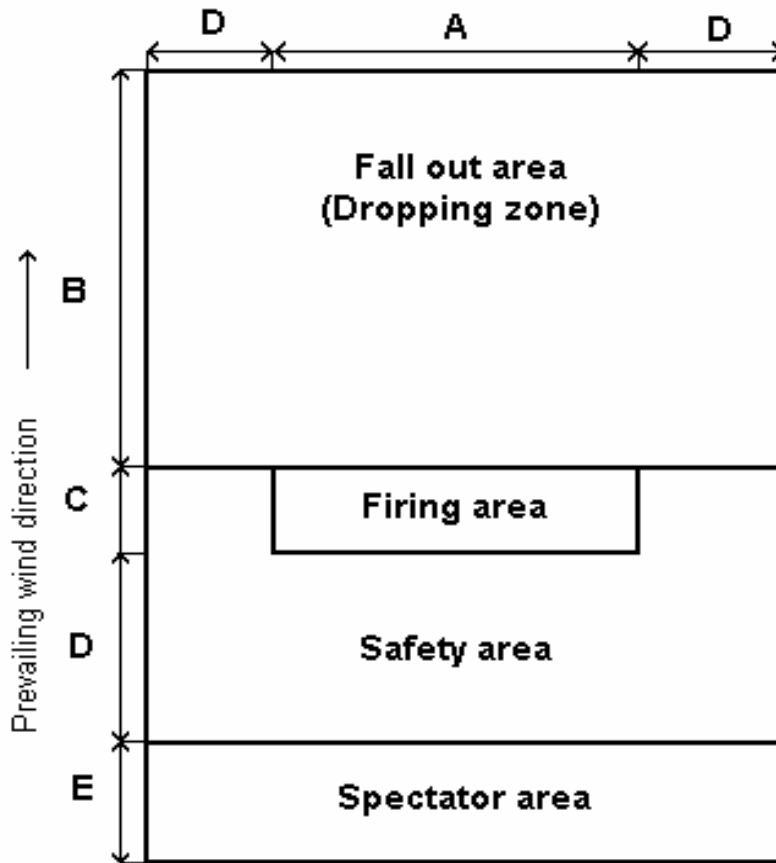
## THE HEALTH AND SAFETY AT WORK ETC ACT 1974

28. Organisers of public or semi-public displays should be aware of the requirements of the Health and Safety at Work etc Act 1974, which places a responsibility on them to ensure the safety of both employees and members of the public.

### OTHER USEFUL GUIDANCE

29. The following guidance should be taken into account when combining a bonfire display with a firework display:-
- On Fireworks Night Do Things Right (Guide to organising a public display). Free leaflet available from the Department of Trade and Industry.
  - Giving Your Own Firework Display (How to run and fire it safely). Available from the Health and Safety Executive, HSE Books, ISBN 0-7176-0836-0.
  - Working Together on Firework Displays (A guide to safety for firework display organisers and operators). Available from the Health and Safety Executive, HSE Books, ISBN 0-7176-0835-2.

**Site layout for displays including aerial fireworks**



Distances, where

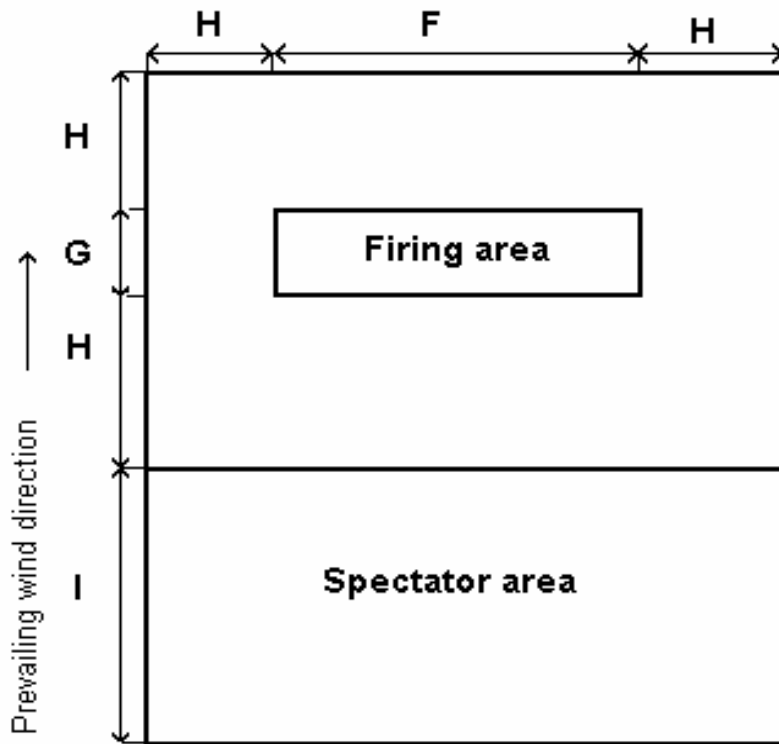
the display  
is fired by a competent display  
operator

	A	B	C	D	E
<b>Minimum distance (metres)</b>	50	100	25	50	<b>As required to prevent overcrowding</b>

Distances, where the display  
is fired PRIVATELY

	A	B	C	D	E
<b>Minimum distance (metres)</b>	50	50	20	25	<b>As required to prevent overcrowding</b>

**Site layout for displays without aerial fireworks**



**Separation Distances**

	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>
<b>Minimum distance (metres)</b>	50	15	25	<b>As required to prevent overcrowding</b>