

Introduction

Details Last Updated: 08 June 2017



The Purple Guide to Health, Safety and Welfare at Music and Other Events has been drawn up by the Events Industry Forum in consultation with the UK events industry, including representatives from regional and national Government. This publication is designed to replace the original "Purple Guide" (HSG195) which was originally published by the Health & Safety Executive (HSE) in consultation with the industry.

The guide aims to help those who organise music or similar events, so that the events can run safely. As an employer, the event organiser - whether an individual, collective or local authority - has a general duty to ensure, so far as reasonably practicable, the health, safety and welfare of their employees. They also have a duty to ensure, so far as is reasonably practicable, that others - including volunteers and spectators - are not exposed to risks to their health and safety arising from the operation of the event.

This guide goes beyond the compliance with the Health and Safety at Work Act and covers not only legislation and good practice for Health and Safety, but other legislation and good practice across the industry including the Licensing Act 2003, the Civil Contingencies Act 2004 the Regulatory Reform (Fire Safety) Order 2005 and others . This new guide has been designed to sign-post event organisers and suppliers to the practices and issues that need to be considered when events are being planned. The contents are not designed to be prescriptive but simply seek to highlight legal criteria and non-legislative good practise. At all stages, those using this guidance are encouraged to undertake appropriate risk assessments and evaluations to assess the specific requirements for each event they are organising or involved with. This guidance is not the law and there may well be other equally effective ways of dealing with risk.

In some areas, the Guide signposts users to other sources of information that may be helpful. At time of publication all the links were checked and it is intended that these will be regularly updated and amended if necessary.

Due to the complexity of organising a wide range of events, the guide contains a large amount of detail, which may not always be relevant for some smaller events. Organisers running modest scale events may wish to also refer to the HSE's event safety web page www.hse.gov.uk/event-safety/index.htm

Volunteers running events do not generally have legal duties under the Health & Safety at Work Act. Please reference www.gov.uk/government/news/can-do-guidance-will-make-organising-volunteer-events-simpler for further information and guidance.

As well as event organisers, others may find the guide useful, e.g. local authorities, health and safety enforcement officers, licensing officers, emergency services, land owners, contractors or sub contractors working at the event.

The guide aims to provide standards and safety measures through which it is hoped to encourage a consistency of approach while leaving scope for flexibility, taking into account the nature and size of the event.

As all events have their own unique requirements and legislation frequently changes, this publication should only be read as guidance and the contributors, editors and publishers cannot be held responsible for the accuracy of the information therein.

A full list of acknowledgements for the numerous professionals who have been involved in writing this new guidance are listed on the credits page. We would like to particularly acknowledge the financial support provided by the Concert Promoters Association and members of the Events Industry Forum which have made completion and publication of the new Purple Guide possible.

1. Health & Safety Legislation

Details Last Updated: 09 May 2017



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

Health and safety law places duties on businesses involved in events to ensure the health and safety of their employees and the public

Further legislation relating to entertainment licensing, fire safety and safety at sports grounds applies to events and is signposted in The Purple Guide

Events run by volunteers (where no one is employed) are generally not covered by health and safety law, unless someone is in control of premises see www.gov.uk/government/news/can-do-guidance-will-make-organising-volunteer-events-simpler

Enforcement of health and safety law at events is shared between the Health and Safety Executive (HSE) and local authorities.

The maximum penalty for breach of Health and Safety Legislation is up to 2 years in prison and an unlimited fine.

Enforcement of fire safety legislation generally rests with individual fire and rescue authorities. There are exceptions such as Sports Grounds, please ensure you liaise with your Fire Service who will be able identify this for you.

1.1 This chapter summarises the main points of health and safety law, and the principal legal duties of event organisers and other key people involved in events. For the purposes of this publication, the 'event organiser' is the individual or organisation that promotes and manages an event. It must be emphasised that the Purple Guide goes further than covering health and safety law, but gives guidance on matters such as fire safety, and licensing law.

1.2 The complex nature of event management means it is crucial that everyone involved clearly understands their wider legal duties as well as Health and Safety Legislation. Other responsibilities include the Occupiers Liability Act 1957- a duty owed to visitors, and the Occupier Liability Act 1984 - a duty owed by the occupier to persons other than visitors. The Fire Safety Order 2005 deals with duties arising under fire safety. The Licensing Act 2003 is a specific area where additional responsibilities and duties may apply to organisers. Advice and guidance on these responsibilities is contained within the relevant chapters in this guide. In the event of any doubt please seek legal advice.

1.3 The main law governing health and safety at work in the UK is the Health and Safety at Work etc Act 1974 (HSWA). This places general duties on employers, the self-employed and people in control of premises to ensure,

so far as is reasonably practicable, the health and safety of their employees and anyone else that may be harmed by work activities or the workplace, e.g. the audience.

1.4 The most significant difference between events organisation and other work activities is the large numbers of people who, though not in employ, are still owed duties. These people will be behaving differently; they may be celebrating, on holiday, under the influence of drink and drugs, in an unfamiliar situation, trying new activities. Organisers need to think about their audience and the performer profile, and bear in mind who is coming to the event and how they are going to behave. There is a need to consider the most vulnerable, e.g. children, the less able and the intoxicated when planning/designing a safe site. Each crowd is unique to that event/activity. Detailed consideration of how to predict, identify and manage behaviour is discussed in later chapters.



1.5 Event organisers, concert promoters, contractors, subcontractors, freelancers and venue owners all have a statutory duty to comply with the HSWA.

1.6 HSWA section 2 places duties on employers to provide their employees with:

- safe machinery, equipment and systems of work – this includes all equipment used at events, from structures to lasers and generators
- methods for ensuring equipment and harmful substances are used properly and stored safely
- necessary information, instruction, supervision and training
- a safe and healthy workplace
- a safe and healthy work environment, including adequate lighting, heating, ventilation and toilet facilities.

1.7 Even if people working under the control and direction of others are treated as self-employed for tax and National Insurance purposes, they may still be considered employees for health and safety purposes.

1.8 If any doubt exists about who is responsible for the health and safety of a worker, this should be clarified and included in the terms of their contract.

1.9 HSWA section 3 places general duties on employers and the self-employed to ensure, so far as is reasonably practicable, that their employees or people other than their employees are not exposed to risks to their health or safety. This includes people attending the event, volunteers and contractors.

1.10 Health and safety responsibilities are defined by criminal law and cannot be passed on from one person to another by a contract. In any client/contractor relationship, both will have duties under health and safety law.

1.11 A key factor to consider will be the extent of control that each person has over the work activity and workplace. For further guidance about contractors, see HSE leaflet Use of contractors: A joint responsibility (INDG368).

1.12 HSWA section 3 does not apply to:

welfare issues (such as providing toilets or washing facilities for the audience)
nuisance or amenity issues that have no health or safety implications (such as unpleasant smells or noise arising from work activities and amplified music)
poor workmanship, where trading standards or contractual remedies may exist, unless it has demonstrably compromised health and safety.

NB: Issues such as food safety, public health, nuisance and licensing law are addressed under a range of other legislation and are covered in chapters through this Guide.

1.13 HSWA Section 4 places a duty on those in control of work premises to not endanger those working in them. This includes ensuring safe means of entering and exiting premises and that plant and equipment are safe to use.

1.14 The control of the venue may be shared between a number of people. If this is the case, the respective responsibilities should be clearly defined and assigned. Organisations and individuals who have any control of the premises or work within them should consider what measures they need to take to ensure the venue is safe. There should be effective liaison arrangements between all parties on health and safety matters and sharing of safety-related information, e.g. the location of buried services.

EMPLOYEES

1.15 The HSWA also places duties on employees to:

ensure their own health and safety and that of others who may be affected by their work
co-operate with their employer in health and safety matters
notify their employers of any shortcomings in health and safety arrangements
not misuse or interfere with items provided for health and safety reasons, e.g. using fire extinguishers to hold doors open.



VOLUNTEERS

1.16 Event organisers and their contractors have a duty to ensure the health and safety of anyone working for them as a volunteer.

1.17 The job of volunteering, however, generally doesn't fall within the scope of health and safety law unless it is done through an organisation that is an employer. For example, a group of local residents who come together to organise a street party do not have duties under health and safety law. Similarly, a volunteer working for an event

organiser and/or one of their contractors will not have duties under the HSWA other than the duty not to misuse or interfere with items provided for health and safety reasons.

For further guidance please follow the link to www.gov.uk/government/news/can-do-guidance-will-make-organising-volunteer-events-simpler

REGULATIONS

1.18 Other regulations support the HSWA and set out more detailed legal duties for specific activities or topics. For example, The Management of Health and Safety at Work Regulations 1999 complement and expand on the general HSWA duties mentioned above. In summary, these regulations require employers and the self-employed to:

examine activities and workplaces to identify what could cause harm to people and decide whether they have taken enough action to prevent harm, or if they need to do more. This process is known as a 'risk assessment' follow the 'preventative principles' of removing a risk or, if this isn't reasonably practicable, controlling it (see Purple Guide [Chapter 2](#) for further details)

examine activities and workplaces to identify what could cause harm to people and decide whether they have taken enough action to prevent harm, or if they need to do more. This process is known as a 'risk assessment' have effective arrangements in place for managing health and safety (including emergency arrangements)

have access to competent health and safety advice

take workers' capabilities into account when assigning jobs

co-operate and co-ordinate their activities with others sharing the workplace

ENFORCEMENT OF HEALTH AND SAFETY LAW

1.19 Local authorities are generally responsible for enforcing health and safety legislation at music and similar events. Where an event is organised by a local authority, HSE is normally responsible for enforcement. Details of the division can be found in the Enforcing Authority regulations.

1.20 HSE has enforcement responsibility for the following activities at all events. These are:

construction work which is covered by Sch2 (4) of the health and safety (enforcing authority) regulations 1998.

This could include the erection and dismantling of temporary demountable structures, such as stages and grandstands covered by the relevant enforcing regulations

fairground rides

1.21 In certain circumstances, arrangements can be made to transfer enforcement responsibilities between HSE and local authorities.

1.22 HSE's Enforcement Policy Statement (HSE41REV1) sets out the principles that HSE inspectors and local authority environmental health officers must follow when making enforcement decisions. In particular, any action taken by regulators should be proportionate to the risk.

2. Planning, Management & Risk Assessments

Details Last Updated: 07 June 2016



Please note: The information contained in this guide provides pointers to legislation and good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

Effective planning is central to putting on a safe event

Prepare an event safety plan

Have appropriate management arrangements in place to ensure the health and safety of employees and others, including volunteers and the public, during all stages of the event

Carry out a systematic assessment of the risks to employees, volunteers and the public

Implement risk control measures identified by the risk assessment

Put appropriate arrangements in place to monitor health and safety compliance

Provide competent health and safety advice

Liaise with other interested parties, including local authorities, stadium management, arena operators, safety advisory groups and the emergency services, early in the planning process

Thorough investigation of the site to be used

2.1 Good planning and organisation are key to putting on an event that is both safe and enjoyable. The basic health and safety approach is www.hse.gov.uk/managing/index.htm

2.2 The need to plan and organise for effective safety management is a legal requirement and, in all instances, the degree of sophistication and detail needs to be proportionate to the scale of the undertaking and the level of risk.

2.3 Effective planning includes the safe management of activities through identifying then eliminating the risk. Where this is not practicable, the aim should be to reduce, isolate or control hazards and risks.

2.4 The amount of time that needs to be set aside for planning will be very much dependent upon the size, type and duration of the event. For large events, experience shows that a year beforehand is not too early to start.

KNOW YOUR EVENT

2.5 The first step is to know and understand the event. This may seem obvious, but only by identifying the scale, type and scope of the event will you be able to determine what might go wrong and what preventative measures are required.

2.6 Knowing the event means having a detailed grasp on a range of factors, each of which should influence how the event is planned and how you need to allocate your time and resources. Some of the main considerations are shown in Table 1, below, and expanded upon in later chapters. It is important that these factors are considered from the early planning stages of the event.

Key things to consider	
The location (venue/site)	The choice of location will determine what specific hazards are likely to be present and inform decision-making about risk management on a range of issues
Event activities	The type of event activities will determine the health and safety risks involved
Audience profile	The activity will determine the type of people who come and their expectation of the event. Establishing an audience profile will lead to predictions regarding anticipated behaviour and indicate where particular risks may arise The audience profile will inform decisions on various issues, including the type of construction required, welfare facilities and stewarding
Crowd numbers	The number of people expected to attend will affect the resources and facilities required, from basics such as toilets and parking through to determining whether special arrangements are needed for medical services and waste management
Length and timing of event	Consider how long the event will last, plus the time of day and time of year
Access	Access to and around the site will require careful planning to reduce the likelihood of overcrowding and any potential risk of crushing
Infrastructure	The type and scale of the event will determine what resources are needed to allow safe enjoyment, e.g. availability of a safe electrical supply. Planning for this will be required at the outset

Table 1: Key things to consider when planning an event

2.7 As the organiser, you will already know many of these factors – you will have a vision of the final event and know the kind of size, look and feel you are trying to achieve. But you need to translate this vision into an appropriate safety plan. The key tool for creating a safety plan is the process of risk assessment.

2.8 The industry has developed specific planning pathways to help organisers devise safety plans in an efficient and sequential manner. This is a general pathway to producing an overall event plan that will include a safety plan. It is important to note that this goes beyond what is required under safety legislation, but illustrates that Health and Safety Management should be incorporated as part of an overall approach and not be a stand-alone plan.

See Figure 1 below.

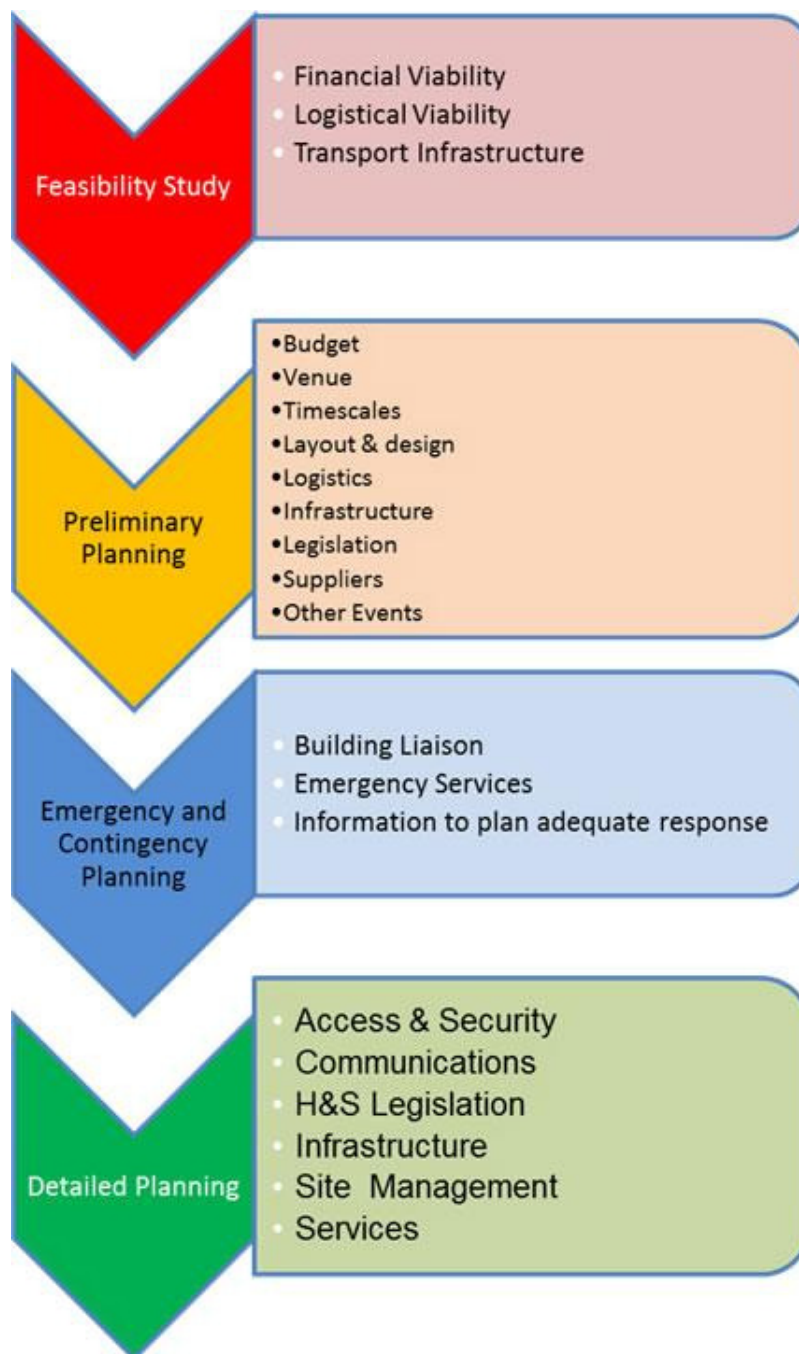


Figure 1: Example of a planning pathway (Extends beyond H&S) based on PAS51 2002

RISK ASSESSMENT

2.9 Every employer (including event organisers) involved in the event is required to carry out a 'suitable and sufficient' assessment of the risks to the health and safety of employees and others, including the audience. The assessment should be completed by a competent person. There are certain exceptions to the duty to undertake a risk assessment, such as duty holders under section 4 of the Health & Safety at Work Act. It is good practice for any event to adopt risk assessment approach to safety management, and this could be incorporated into an operational event assessment.

2.10 A risk assessment is simply a careful examination of what could cause harm to people, how serious that harm may be and the likelihood that it will occur. By doing this, the organiser will be able to decide what precautions are required. Knowing your event thoroughly is a precursor to conducting risk assessments. A hazard is something with the potential to cause harm. Risk is both the likelihood of that hazardous event occurring and the seriousness of its impact. While hazards may be common to each event, the management of the risks created by those hazards is unique to each event. Safety management is about risk management not hazard management, putting in place control measures to reduce risks to acceptable levels.

2.11 The organiser should focus on those risks likely to cause real harm to employees and the public. Even small events could have a range of hazards, e.g. working at height, vehicle movements and electricity.

2.12 The law only emphasises the areas that good management should lead employers to consider anyway, i.e. to look at the risks and take sensible and proportionate measures to tackle them.

2.13 There are five simple steps that need to be taken to assess the risks arising from any particular work activity:

Risk assessment	
Step 1	Identify the hazards
Step 2	Decide who might be harmed and how
Step 3	Evaluate the risks and decide on precautions
Step 4	Record your findings and implement them
Step 5	Review your assessment and update if necessary

2.14 Below is an example of how an organiser might carry out a risk assessment on an identified hazard:

Hazard	Who is at risk	Controls in place	Further action needed
Noise – amplified music	Staff might suffer permanent or temporary hearing damage from long-term exposure to loud music All staff are assumed to be at risk, particularly stewards and bar staff	Noise limiter fitted to sound system and sound engineer informed Regular check of sound systems to ensure balance/ proper control Quiet areas provided Staff rotation between quiet and noisy areas Staff trained in noise risks and protective measures Staff considered to be particularly at risk given earplugs Health surveillance, e.g. hearing tests, for 'at risk' staff	To make sure that protection of staff from excessive noise is designed into the venue/site at the planning stage of each event e.g. location of bars in relation to the main stage/speakers

WHAT TO ASSESS FOR EVENT SAFETY

2.15 There is no fixed format or content for an assessment. The requirements to be suitable and sufficient depend on the likelihood of the risk happening and the severity of the consequences should something go wrong. Any risk assessment must therefore be appropriate to the dangers and the particular circumstances of the event, and in such a degree of detail and practicality that it properly identifies reasonably practicable and effective control measures. Risk assessment examples are available from HSE's website (<http://www.hse.gov.uk>). See Figure 2 for factors influencing risk assessment.



Figure 2: Factors influencing risk assessment

2.16 Not all hazards and risks may be easy to spot. Some may be obvious/likely to happen, such as tripping over a trailing electrical cable. Others may be less obvious, but could have serious consequences, e.g. climbing into the roof of a stage to replace a light. Expert advice may be necessary to help identify them.

2.17 Organisers are only expected to tackle reasonably foreseeable hazards, taking account of reasonably foreseeable events and behaviour. They don't have to risk assess and implement controls for every far-fetched circumstance. However, weather-related incidents, such as the wind acting on temporary structures or the risk of lightning in summer, are well known, as is the effects of alcohol on individuals.

2.18 Once the risks are assessed and taken into account, insignificant risks can usually be ignored, as can risks arising from routine activities associated with life in general e.g. putting the kettle on or crossing the road, unless the work activity compounds or significantly alters those risks.

DEALING WITH RISKS AND DECIDING ON PRECAUTIONS

2.19 The following approach is recognised as the most effective way to ensure that organisers and others have taken all reasonably practicable measures to manage the risks identified in their risk assessments. Starting with the most effective, the ways to deal with risk are set out below. In practice, a combination of risk control measures is normally required:

Get rid of the risk altogether, where reasonably practicable e.g. to prevent people falling from height and injuring themselves during stage roof construction, build the roof on the ground and crane it into place

Swap for a lower risk e.g. use a diesel rather than a petrol generator to reduce the risk of fire and explosion

Separate the risk from people e.g. create separate pedestrian and traffic routes to reduce the risk of people being run over

In addition to the above, or where the above cannot be achieved, give people rules, procedures, training or personal protective equipment e.g. ear defenders and high-visibility jackets

RECORDING THE RISK ASSESSMENT

2.20 If five or more people are employed, the employer must record the key findings of their risk assessment however the event risk assessment should be recorded.

2.21 If an employer has fewer than five employees they do not have to write anything down, though they are still required to undertake a risk assessment.

2.22 It is up to the organiser and others to decide on the format of their assessments, as long as the significant risks and any plans to deal with them are included.

WHERE TO GET HELP

2.23 In general, the bigger and more complex the risk, the more information and guidance will be needed. This Guide may tell you much of what you need to know, helping to identify hazards and determine how any foreseeable significant risks to employees and the public can be prevented where possible, or controlled if prevention is not reasonably practicable.

2.24 Other sources of information and advice are also listed within this Guide, including that provided by other authorities, industry bodies, trade associations and the HSE website.

2.25 The best way to protect employees and visitors from harm or illness is to involve your workers. Details on worker and Union representative involvement can be obtained from www.hse.gov.uk/involvement/index.htm

COMPETENT HEALTH AND SAFETY ADVICE

2.26 Although most event organisers will be able to find out what they need to know for themselves, some issues require technical knowledge outside their experience. In such cases, they need a source of competent advice.

2.27 Event organisers should appoint a suitably competent safety co-ordinator to help comply with health and safety legislation. This person should report directly to them. The safety co-ordinator must be appointed as early as possible so they are involved in event planning.

2.28 The safety co-ordinators role should be defined in the responsibilities section of the event health and safety policy and can include:

- advising on venue or site suitability
- assisting the event organiser in identifying hazards and risks at the planning stage
- helping the event organiser to identify and control hazards and risks as the event progresses
- assisting the event organiser in determining suitable and sufficient precautions to be taken to control the risks
- advising the organiser on the adequacy of the event safety plan and risk assessments
- aiding the organiser in the competence assessment of contractors and subcontractors
- advising on the development of site safety rules
- identifying event-specific health and safety training needs for employees, contractors and others
- developing monitoring arrangements to be applied by key event staff
- auditing and inspecting of safety performance throughout the event
- incident investigation
- liaising with enforcement agencies
- reviewing outcomes of monitoring and preparing a debrief report.

Ensure adequate health and safety supervision is on site at all times

2.29 Competence is best defined as a mix of education, training and experience. It is not the responsibility of the Safety Coordinator to appoint competent contractors (that remains with the organiser), but competence and good practice extend across all areas of event planning and risk management.

2.30 As required by the Management of Health and Safety at Work Regulations 1999, employers (including event organisers) must have access to competent advice in applying the provisions of health and safety law.

2.31 This means that an organiser must have the health and safety knowledge and skills to identify any hazards and assess the related risks. If this is not already available in-house, help with managing health and safety should be sort from other sources, such as specialist contractors and health and safety consultants/advisers.

2.32 It must be remembered that the organiser, not the health and safety coordinator or consultant, has the ultimate legal duty to ensure that risk management is implemented and carried out properly.

ORGANISING FOR SAFETY



Figure 3: Organising Health and Safety

2.34 Establishing and maintaining control are central to all management functions. Ensure that everyone clearly understands his or her health and safety roles and responsibilities.

2.35 It is normally appropriate to set out specific managerial health and safety responsibilities in an organisation's management structure. The overall scale of an event is likely to determine what kind of organisational structure is appropriate for the management of safety.

2.36 For small-scale events, such as a family fun day, health and safety management can be undertaken alongside existing duties so a single organiser can meet all the relevant legal duties. At larger events, where there are many duty holders fulfilling different roles, and organisational and technical arrangements are more complex, specific allocation of safety roles and responsibilities will be needed.

2.37 Whatever the scale of the event, it is important to be sure that there is a clear understanding within the organising team of who will be responsible for safety matters. For organisations with five or more employees, this is likely to be driven by the company's written health and safety policy.

2.38 The policy should outline who has overall responsibility for safety matters, and how specific safety duties will be allocated throughout the organisation. Simply allocating tasks to someone else does not exonerate senior management or the organisation from statutory health and safety duties.

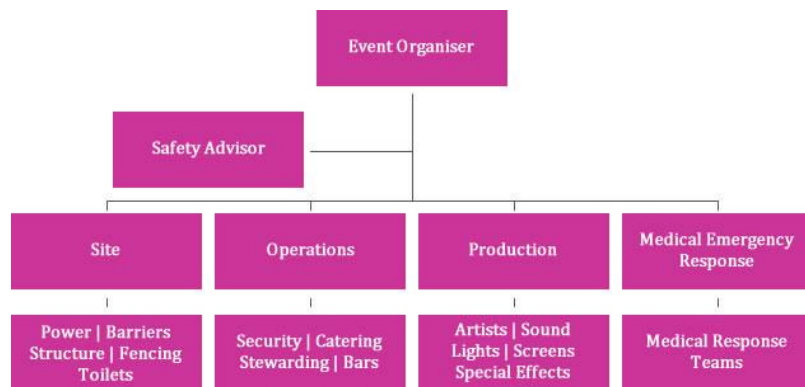


Figure 4: Organisational structure

DOCUMENTATION

2.39 The results of event safety plans will form the basis of risk assessments and vice versa. Communicate these plans to key staff and contractors. This does not necessarily mean they need to be given the whole risk assessment document, just the relevant findings and any particular hazards or working arrangements that may affect them.

2.40 The Event Management Plan (sometimes called the safety plan) consolidate information into a single authoritative document. This will vary significantly in size and detail, depending on the scale and complexity of the event. Some of the key components are likely to include:

- an outline of the event – date, location, start/finish time, type of activity or event
- the event safety policy statement detailing the organisation chart and levels of safety responsibility
- an audience profile – who is expected to come and what implications this might have for safety management, such as arrival circulation and exit profiles, expected densities, and the numbers and types of stewards
- a management outline – details of the key management holders and their duties
- details of the event, including venue design, structures, audience profile and capacity, duration, food, toilets, refuse, water, special effects, access and exits, music levels etc
- the transport management plan detailing the parking arrangements, highway management issues and public transport arrangements
- the contingency plan including a major incident plan
- summary of key risk assessments and findings
- site plans

LIAISON WITH THE LOCAL AUTHORITY AND EMERGENCY SERVICES

2.41 Every Local Authority (LA) and enforcement agency has different arrangements for events undertaken within its boundaries. It is the responsibility of event organisers to liaise with the local authority to check the details.

2.42 There is a requirement under the Management of Health and Safety Regulations to consult where necessary with external services, such as first aid medical and rescue services. Coordination is usually through the LA.

2.43 When dealing with Licensing applications under the Licensing Act 2003, or looking for general site approval for non-licensable event, it may be helpful to ask the LA to provide a checklist of information required for prior approval, along with the timescale for submitting paperwork. The details you supply should be sufficient to enable the local authority to examine your safety management systems and check plans, calculations and drawings. Make suitable arrangements so that the local authority and you can contact each other quickly for matters that may need further clarification.

2.44 Under licensing legislation local authorities and under fire safety regulations the local fire and rescue service may require evidence that you have planned your event safely before it takes place. Keep documentation in a file

to ensure that it is easily available for examination by health and safety inspectors, the fire service or other LA officers.

2.45 Last-minute changes are not conducive to good safety planning and management.

LOCAL AUTHORITY SAFETY ADVISORY GROUPS

2.46 Safety Advisory Groups (SAGs) (known as Event Planning and Operations Groups in Scotland) are non-statutory groups of multi-agency representatives formed to promote safety at public events. The role of the SAG is to enable event organisers to share information with (and be challenged and scrutinised by) public health and safety agencies regarding the particular event, specifically the risks and the intended management arrangements to ensure public and employee safety.

2.47 SAGs are usually, but not exclusively, co-ordinated by a LA and made up of representatives from the LA, emergency services and other relevant bodies. They meet at regular intervals, or when necessary, to review event proposals and advise on public safety. They may be event or location specific but otherwise tend to be based on LA boundaries.

2.48 SAGs do not have legal powers or responsibilities and are not empowered to approve or prohibit events from taking place. They provide independent advice to event organisers who retain the legal responsibility for ensuring a safe event. Individual representatives of organisations forming the SAG may have powers to require event organisers to comply with their legal obligations.

2.49 Event organisers should contact the LA and determine whether there are any SAG or similar arrangements they should present their proposals to.

2.50 Events presenting a significant public safety risk (whether in terms of numbers of people attending or the nature of the event and/or the challenge of the environment) should be considered. However, small events like village fetes, where large numbers are not expected and/or the event is routine in relation to the activity normally carried out, need not go to a SAG but the organiser may wish to seek advice from the LA.

PERMANENT VENUE MANAGEMENT

2.51 Organisers should liaise with stadium management/arena operators at an early stage in the planning process to discuss a range of factors. There may be a degree of inflexibility compared with greenfield sites e.g. the size of the venue, fixed entry and exit points, which will be critical to issues like occupancy capacity, emergency policies and licensing arrangements.

MANAGING THE PHASES OF AN EVENT

2.52 Ensure appropriate management arrangements are in place for each stage of the event, from planning through to construction and load-in, the event itself and dismantling.

2.53 The actual public entertainment phase of any event is likely to be considerably shorter than the load-in and load out/breakdown phases either side. While the numbers onsite during the public period will be significantly greater, the need for safety management during construction, breakdown and load-out is just as important. There may be fewer people, but this is likely to be when the highest-risk work activities are carried out. This is especially significant during the deconstruction phase, when time factors and tiredness may increase risks.

Managing the Phases of an Event	
The 'planning phase'	Plan the venue design, select competent workers, select contractors and subcontractors etc Plan the provision of first-aid and welfare facilities (including an adequate water supply) for the people who will be working onsite and ensure they are suitable, in sufficient numbers and available from the time that work begins. Start liaison with LA

The build-up and load-in	Plan for the safe delivery and installation of equipment and services that will be used at the event e.g. construction of the stages, marquees and fencing, erection of stage equipment used by the performers, lighting and public address (PA) systems etc
The live event or public phase	Plan effective strategies for crowd management and transport management Deal with fire, first aid, contingencies and major incidents Plan for the servicing of facilities and supporting services
The breakdown and load-out	Plan for the safe removal of structure, equipment and services, the collection of rubbish or waste and the eventual return of the site to its original use or preparing it for the next incoming event
Debrief	Arrange to receive debrief notes from key people. Debrief meeting and plan for next event

CONTRACTOR SELECTION AND MANAGEMENT

2.54 The selection of contractors and suppliers for an event is a core part of the organiser's role. In any client/contractor relationship, both parties have health and safety responsibilities. As a result, the process of selection and appointment should include consideration of the suitability, reliability and competence of the contractor.

2.55 In support of this, contractors should:

be prepared to demonstrate knowledge and understanding of their work and the health and safety hazards involved

provide evidence on the competence of key staff for the project and trained workforce

confirm that they have sufficient resource levels to do the work

demonstrate adequate levels of insurance specific to the tasks they are going to undertake

provide evidence of previous successful work that shows they can adopt and develop safe systems of working in the absence of experience of previous work, demonstrate an appropriate level of technical ability (being a member of an accreditation scheme, professional organisation or trade association may help with this).

2.56 Once physical activity starts at the event site, the focus of attention needs to move away from planning and paperwork to the effective management and monitoring of site operations.

2.57 Ensure proper co-operation and co-ordination of work activities on the site. This does not mean you become responsible for all the individual technical work carried out by those third parties. It is more a question of ensuring a safe overall phased programme of work has been developed by taking into account contractor risk assessments and communicating this to all relevant parties.

2.58 Further guidance on contractors can be obtained from HSE guidance document 'Using contractors' (INDG368 Rev1).

INFORMATION, INSTRUCTION AND TRAINING

2.59 You must provide your employees and others, including contractors, with relevant information on any risks to their health and safety identified by your risk assessment/s. Contractors will need to do the same for their employees. Do this as part of a briefing about a work activity or task. You may also want to provide relevant information to the public, e.g. in the form of signage.

2.60 A useful means of ensuring everyone works safely onsite is to set some basic rules and carry out a short briefing or site induction to communicate important information, such as site hazards and control measures. For

example, people coming onto site may need to be told about:

- buried services, such as electric cables
- overhead services, such as electric cables
- safe speed limits
- where they can safely park
- first aid, toilets and wash facilities
- emergency arrangements
- weather forecast news
- procedures for using/booking plant equipment

2.61 A site induction need only address the specific dangers, working requirements and safety rules of that particular event. It is not a comprehensive training programme to tell people how to do their job. To be of any value, a site induction has to take place before crews start work, so it needs to be brief, adaptable and, above all, relevant. In the events industry, this can often be linked to issuing of accreditation required to gain access to the site or specific work area.

COMPETENCY

2.62 A competent person is someone who can demonstrate that they have sufficient professional or technical training, knowledge, experience, and authority to enable them to:

- carry out their assigned duties at the level of responsibility allocated to them
- understand any potential hazards related to the work (or equipment) under consideration
- notice any technical defects or omissions in that work (or equipment), recognise any implications for health and safety caused by those defects or omissions, and be able to specify a remedial action to mitigate those implications

SUPERVISION

2.63 There should also be an appropriate level of competent supervision, proportionate to the risk, nature of the work involved and the personnel involved.

MONITORING

2.64 The agreed methods for controlling risks should be periodically checked and tested to ensure they are working and being followed. Your risk assessment should set out the frequency of checks, who is responsible for them and the methods they use.

2.65 For larger events sites, such as a festival, a number of people may share the monitoring role. Whoever is given the role should be familiar with the risk assessment findings and control measures, and be able to identify new hazards and assess risks as they arise.

2.66 For small-scale events, a simple checklist will most likely be enough.

2.67 Others with managerial responsibilities can also assist in this monitoring role while undertaking their other duties.

2.68 There should be a procedure for reporting and taking action on non-compliance with safety measures and unsafe work practices.

2.69 Establish procedures for reporting accidents and near misses and appropriate action taken both to investigate the causes and implement measures to reduce the likelihood of them happening again.

2.70 Close monitoring of incidents, accidents and ill health may give you early indication of hazardous locations or activities onsite, or even provide warning of illness or disease, which may be caused or spread by some people onsite.

2.71 Some incidents (including some categories of near misses) must be reported under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995. Further information is given in the HSE publication INDG453 (Rev 1) A Guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 or online at www.hse.gov.uk/riddor

HUMAN FACTORS: MANAGING HUMAN FAILURES

2.72 This topic can be addressed from two perspectives proactively through **risk management**, or reactively following an incident or accident.

2.73 Human failures can be managed as part of a **risk assessment**, where:

different types of human failure that could occur are identified
the factors that make these failures more or less likely are identified

Performance Influencing Factors and control measures are devised and implemented, bearing in mind the hierarchy of control that requires group protection is in place in preference to individual controls.

2.74 Alternatively, human failures can be reviewed in an **incident investigation**. Again, this involves identifying those factors that influence behaviour.

2.75 In both of these activities, HSE expects organisations to:

use a structured approach
consider the role of humans in initiating and mitigating incidents
consider the different types of human failures (unintentional & decision failures, as well as intentional and action failures)
involve operators

NB: For further guidance, see HSE's website www.hse.gov.uk

THE LOAD-OUT

2.76 Pay particular attention to the dismantling or load-out phase. This is often the point when crew are working at the end of a long period of operations, and the focus may slip to the next show or getting rental equipment out in time to return it.

2.77 Ensure an appropriate level of supervision during this phase and the working crew have access to adequate sanitary, welfare and safety facilities to help them complete the job safely.

DEBRIEFING AN EVENT AND REVIEWING PERFORMANCE

2.78 It is good practice to debrief after an event in a structured way so you can identify any lessons to be learned and ensure improvements are made. Consider including other agencies, such as the police and the LA, in the debrief process. This could mean inviting them to a meeting or obtaining a written report.

2.79 Analysis of safety performance will help to identify any trends and assist in the development of improved safety procedures at future events.

3. Venue & Site Design

Details Last Updated: 07 June 2016



Please note: The information contained in this guide provides pointers to legislation and good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

Carry out a site-suitability assessment early in the planning process

In that assessment, include the nature of the event, audience numbers and the infrastructure required

Design the site layout to minimise risk, for example to segregate pedestrians and vehicles

Prepare a site and area location plan

Establish emergency routes

Liaise with key stakeholders, such as landowners, the local authority, local emergency services, neighbouring businesses and local residents

3.1 The general principle behind venue design is to provide an arena or location in which the audience can enjoy the entertainment in a safe and comfortable atmosphere, and to ensure that the health, safety and welfare needs of the workforce are also met.

3.2 The detail and complexity of the site and facilities will depend on the nature of the entertainment planned, the audience profile, the location, size of the event, the time of year (weather) and duration of the event. The site design will also need to take account of the existing geographical, topographical and environmental infrastructure.

3.3 The inflexibility of some fixed venues may limit the event layout and design as they are often built with another use in mind, e.g. football. The event will create new hazards and risks and there may be specific venue requirements to consider in addition to those referred to below. Venue management will be able to give advice about these.

3.4 This chapter gives an overview of the site-design process and highlights key safety factors that an event organiser should consider. Other chapters expand on many of the highlighted factors.

KNOWING THE EVENT

3.5 It is essential to understand what the event is and what is involved in it. The size and nature of an event can vary greatly, as do the venues and sites in which they take place, so it is important to have fully considered:

what is it that is being organised and what is involved in terms of entertainment and infrastructure?

where is it taking place and how will the characteristics of the site and its location affect the event?
when does the event take place and what impact will the time of year have on the site and/or activities?
who will be attending, both in terms of the number of people and their characteristics, as well as how will their anticipated behaviour affect how the site is designed?

PRE-SITE DESIGN DATA COLLECTION

3.6 Properly knowing and understanding the event and its audience is an important precursor to successful site design (see **Chapter 13** on Crowd Management). It means having a detailed grasp of a range of factors including:

- duration and time of year that the event will take place
- the proposed event activities and whether they are indoors or outdoors
- the audience type/profile for these activities
- whether the audience will be standing, seated or a mixture of both
- the proposed audience capacity
- the circulation of the audience within the site
- access onto and around the site
- the structures and facilities that will be required
- workforce to support the build up, event and breakdown
- emergency plans for these aspects of the event

Example: The Audience Profile

Knowing the audience profile will help in the effective design of the site to ensure the crowd can be managed safely
Gather information about the audience in terms of age profile, gender ratio and expected behaviour pattern
An audience for an antiques fair will be different from a rock concert; family groups will behave differently from non-family groups
Depending on the profile, tailor facilities to the needs and behaviour of the audience. For example, the sale of alcohol at an event can affect the audience profile and behaviour – the bar area might need to be in a separate, controlled area

Find more advice about audience profiling in The Purple Guide **Chapter 13** on Crowd Management

ASSESSING SITE/VENUE SUITABILITY

3.7 Once a clear understanding of the event concept has been established, a visit to the venue or site to carry out a preliminary assessment will determine its suitability. The factors to consider include:

- available space
- viewing space – this can be enhanced by use of video screens
- traffic and pedestrian routes, and emergency access
- ground conditions
- position and proximity of noise-sensitive buildings
- geographical location
- topography
- location and availability of services.

3.8 Obtaining a plan of the site should be an early step. Try and get one to the best quality and the best scale available.

3.9 It is essential to walk the site at different times, study maps and seek advice from landowners and users.



VENUE CAPACITY/AVAILABLE SPACE FOR THE AUDIENCE

3.10 The capacity of a venue generally depends upon the available space for people (the audience, staff and contractors), taking account of the event infrastructure/temporary structures, the number of emergency exits and the sight lines for the audience to view the entertainment.

3.11 Emergency exits and circulation capacity are limiting factors in capacity calculations, and should be included in the Risk Assessment. Others include:

accessibility to the site in terms of transport and parking

times the site is open to the public

number of entrances

the expected flow rate through the entrances, which in turn is impacted by security considerations around searching of individuals.

3.12 In the audience capacity flow chart, figure 1 below, the S and P factors are control calculations identified in **The Guide to Safety at Sports Grounds (The Green Guide)** and determined by risk assessment. In order to calculate the holding capacity, each part of the venue's viewing accommodation should be assessed according to its physical condition. This assessment is known as the (P) factor. Similarly, each part of the venue's viewing accommodation should be assessed according to the quality of the safety management of that area. This assessment is known as the (S) factor.

NOTE. As stated in the Safety at Sports Grounds (The Green Guide), the mandatory discounting of an exit may be unreasonable, particularly in the case of events held in Stadiums where the pitch is used as a viewing area. The need for discounting an exit should be evaluated in accordance with the risk assessment and fire risk assessment.

3.13 The rates of escape that are recommended are those in **The Guide to Safety at Sports Grounds 5th edition (The Green Guide)** published by DCMS. These are based on BS EN 13200-1:2003, which advises that, for a width of 1.2m:

a. on a stepped surface 79 people can reasonably exit in 1 minute (equal to 66 spectators per metre width per minute)

b. on a level surface 100 people can reasonably exit in 1 minute (equal to 82 spectators per metre width per minute)

3.14 Higher evacuation rates should only be used if specifically justified by the event risk assessment. The risk assessment should also take into account other significant factors in the audience profile, including behavioural matters such as alcohol and drugs and physical matters, such as the presence of child buggies/prams.

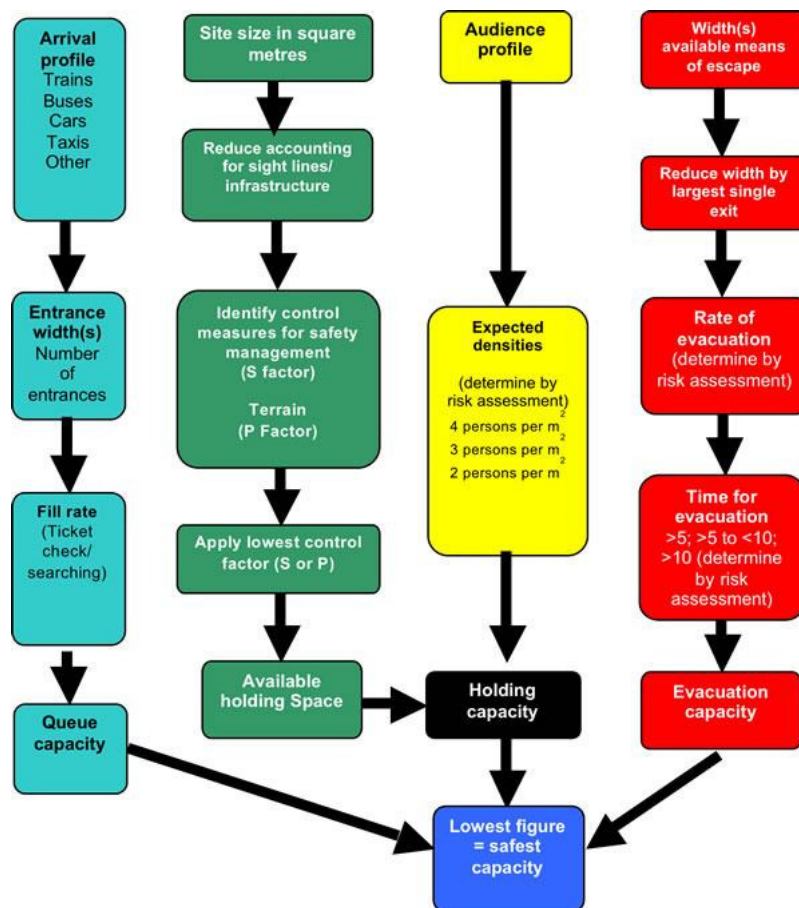


Figure 1: Audience capacity flow chart

ROADS AND BRIDGES

3.15 Ensure any roads and bridges to the site and on the site are structurally sound and able to withstand the additional load of heavy vehicles and potentially large numbers of people at the construction and dismantling periods as well as event days. For further information, see [Chapter 7](#) on Transport Management. You should also pay attention to Construction and Design Management Regulations that are applicable to the events industry. For more information see <http://www.hse.gov.uk/construction/cdm.htm>

3.16 Identify any bridges on site in the safety plan, and highlight those that are key to ingress and egress or are needed as emergency service routes. Ensure they too have clearance or loading required.

LOCAL AMENITIES

3.17 Assess the site's proximity to a hospital, fire station, public transport, parking, major roads, and local services and facilities.

3.18 Among other things, the location will influence the level of services required to make the event safe, for example, water, sewage, gas, electricity.

HAZARDS FROM UNDERGROUND SERVICES OR OVERHEAD POWER LINES

3.19 Temporary services may be required for the event. These may involve running water pipes and electrical cables over ground or under ground.

3.20 Determine whether the proposed event site is within the consultative distance of a hazardous installation or pipeline. It is recommended that if services are identified, a full survey should be undertaken to note actual routes and depths. Stakes might be driven into the ground to support structures, such as marquees and tents, and could hit cables or pipes.

HSG 47 Avoiding Danger from Underground Services

Download guide from HSE Website - <http://www.hse.gov.uk/pubns/books/hsg47.htm>

GS 6 Avoiding Danger from Overhead Power Lines

Download guide from HSE Website <http://www.hse.gov.uk/pubns/g6.htm>

3.21 Building of structures near to overhead power lines can be a danger. Power lines must be identified prior to activity and additional safety procedures for working in proximity to them must be put in place and wherever possible these should be designed out of structural areas. For further information, see [Chapter 9](#) Temporary Structures and [Chapter 11](#) on and Electrical and Lighting. You should also pay attention to Construction and Design Management Regulations that are applicable to the events industry. For more information see <http://www.hse.gov.uk/construction/cdm.htm>

GROUND CONDITIONS

3.22 It is important to assess the suitability of ground conditions for the event activities and the construction work it will require.

3.23 Weather conditions prior to, during and post event can vary significantly; safe management process for all conditions should be in place.

NB: For further information, see [Chapter 9](#) on Temporary Structures. You should also pay attention to Construction and Design Management Regulations that are applicable to the events industry. For more information see <http://www.hse.gov.uk/construction/cdm.htm>

TOPOGRAPHY OF THE SITE

3.24 Consider how the site and/or access routes cope with extreme weather. Information about flooding may be relevant to the site and or access routes see the [Environment Agency](#) website <http://www.environment-agency.gov.uk/> for details or for Scotland <http://www.sepa.org.uk/>.

3.25 Ground conditions and topography will help to decide where to position structures, and even the time of year to hold the event.

3.26 Ground and site gradients can cause major issues, especially where poor weather exacerbates conditions. For example, rain causing a roadway to become muddy is a hazard, but when that road is on a slope this can become unusable.

3.27 It is important to take wind conditions into account:

what direction is the prevailing wind and is the site known for being a windy spot?

what impact might a windy spot have on the ability to erect structures?

can the site be designed in a way that reduces wind loadings on structures?

what effect will wind have on signage or the fixings they are attached to and will they still be readable if damaged?

3.28 Topography might also affect special effects, such as fireworks and the designated drop zones for them.

3.29 If it is a street event, established buildings, street lighting and other street furniture could affect plans. Do railings, bus stops or other structures create additional hazards, such as pinch points that present risks to the audience? If so, can they be temporarily removed?



DISTANCES BETWEEN STRUCTURES

3.30 Consider the distance required between structures to help reduce the spread of fire and allow access by fire engines and fire-fighters.

3.31 The Department for Communities and Local Government produces guidance on fire separation in publications such as [Fire safety risk assessments open-air events and venues](#).

PRACTICAL FIRE SAFETY GUIDANCE FOR PLACES OF ASSEMBLY & ENTERTAINMENT - SAFER SCOTLAND SCOTTISH GOVERNMENT

<http://www.scotland.gov.uk/Resource/0041/00418076.pdf>

NB: See chapter 10 on Fire Safety for a summary of fire safety considerations.

WILL THE AUDIENCE BE STANDING OR SEATED?

3.32 Consider whether the audience will be standing, seated or a mixture of both. This will have a bearing on space allowance, crowd dynamics and access arrangements.

3.33 The seating and other viewing accommodation layout in a premises, whether fixed or temporary, is principally governed by general fire safety. If temporary seating is provided, it will need to be adequately secured to allow people to move in and out freely, and avoid 'snaking' and the narrowing of an escape route.

3.34 The Department for Communities and Local Government provides detailed technical guidance on seating numbers, spacing requirements, aisle widths and gangways in [Fire safety risk assessments open-air events and venues](#).

3.35 [BS9999: 2008 Code of Practice for fire safety in the design, management and use of buildings](#) also covers technical standards for seating and gangways.

3.36 Guidance on seating at sports grounds can be found in [The Guide to Safety at Sports Grounds \(The Green Guide\)](#).

SPACE FOR TOILETS, DRAINAGE AND WASTE MANAGEMENT

3.37 Consider whether adequate space can be provided for temporary toilets and showers at camping events and ground drainage for any water tank used to supply sanitary accommodation.

3.38 Separate safe access for vehicles used to remove waste and refuse should also be designed into the layout where possible, to reduce the risk to pedestrians.

NB: For further guidance, see [Chapter 7](#) Transport Management, [Chapter 16](#) Waste Management and [Chapter 18](#) Sanitation.

CAR PARKS AND AREAS FOR VEHICLES

3.39 Large areas for car parking and holding areas for plant, equipment and traders' vehicles may be needed. The safe operation of these areas is vital, as the impact of unsafe procedures could be a limitation or cause the closure of an event.

3.40 Key hazards in these areas include fire and vehicle movements. Bad weather may also make the ground slippery and unsuitable for use.

3.41 The associated risks can be reduced by design, e.g. safe storage of flammable solids, liquids and gases; safe access for pedestrians; temporary surfaces.

SIGNAGE

3.42 The location and size of all signage is critical when designing a site. Make sure it is large enough for people to see it from a distance. Fixture points may have to be constructed, such as scaffold towers.

Signs should be pictorial in content where possible to ensure understanding by non-English speaking persons.

3.43 Advice on signage for people with a visual impairment is available from the [Royal National Institute of Blind People](#) (RNIB)

CAMPING AND CARAVANNING

3.44 If facilities for camping or caravanning are provided at the event, consider associated health and safety risk as part of the site design, e.g. fire and transport safety risks. If possible, separate vehicles from tented areas to minimise the risk of someone being run over. See [Chapter 19](#) on Campsites.

3.45 The Department for Communities and Local Government provides guidance on fire safety and camping at events: [Fire safety risk assessments open-air events and venues](#).

ANIMAL DROPPINGS

3.46 Where necessary, check the site for the presence of animal droppings, which may expose campers and others to health risks such as E. coli infection and other zoonoses (diseases that can be transmitted to humans from animals). See HSE [Agricultural Information Sheet No. 2 Common zoonoses in agriculture](#).

EXISTING STRUCTURES/FEATURES

3.47 Consider whether existing structures pose a hazard e.g. restricted height access for vehicles/lifting equipment/operations. This must include routes to and from the site from trunk roads.

3.48 Assess the suitability of a site by walking round it, studying the appropriate mapping and seeking advice and information from the landowner, local authority or venue management (much of this should already be available for existing venues). Such information is essential before beginning detailed site design.

3.49 The next step is to develop a venue design (layout) to meet the requirements of the event concept, taking into account the site suitability assessment.

LIGHTING

3.50 Assess the requirement for lighting. What ambient lighting is required for the safe movement around the event and what impact might it have on the performance

3.51 Do you require any emergency lighting and where are you going to place it to ensure it is not an obstruction or hazard in itself?

3.52 If your event is only run in day time hours and does not require lighting, what is the possibility of it over running into hours of darkness? Do you need some lighting as back up?

SITE PLANS

3.53 Once the basic outline of the site has been determined a detailed site plan should be produced in relation to the location of provisions and facilities, including temporary structures. It should be to scale and a CAD (computer aided design drawing) may be beneficial. Large sites may benefit from a clearly numbered grid system to assist in referencing locations. Many versions may be produced, as amendments are made when further information is obtained.

3.54 Keep close control over version numbers as plans are reviewed. It is easy to get in a muddle or have different groups/agencies working from superseded drawings. Simple version numbering and dates on any drawing are important. Ensure that the safety team and other key staff members are given up-to-date plans.

3.55 Gridded plans can assist in identifying locations on site in an emergency; therefore a grid should be overlaid onto the final plan.

3.56 Make sure those changes are not made to the site plans after capacity levels have been determined and tickets placed on sale. Alterations may have an effect on sightlines and therefore available viewing areas, leading to overcrowding.

3.57 It may be worth considering holding back a proportion of the tickets from sale in some areas until all structures are in place and it can be determined where sightlines are obscured. Plans may already exist for permanent existing premises.

3.58 Plans for excess visitors should also be in place this includes identification of holding areas, queuing areas and soft ticket checks if it is a ticketed event. Real-time communication using PA systems or loud hailers would be a significant benefit for this.

FINAL SITE DESIGN

3.59 Draw up a final site plan in relation to spacing requirements, etc, once all the necessary details and requirements have been worked out. Power generation and distribution positions can now be finalised. The date of its publication should be agreed to assist in version control.

3.60 The aim should be to produce a referenced plan to an agreed timetable, clearly indicating where the structures, facilities, barriers, fence lines, entrances/exits and specific safety hazards, such as overhead power lines, etc, will be. This will not only assist during construction of the site, but will be of use for services operating during the event, e.g. stewards, and first-aid and welfare teams. The local authority may require you to submit site plans through the licensing and / or Safety Advisory Group process. They may ask for three different plans that cover the geographical location, the overall site plan including the surrounding areas and access, and a detailed plan of the site.

4. Contingency & Emergency Planning

Details Last Updated: 26 September 2017



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

- To emphasize the importance of having plans in place to effectively respond to disruptive influences, health and safety incidents and emergencies which might occur at, or impact upon an event**
- To recognize that with all but the smallest, low risk, events organisers will need to liaise with the emergency services, and other relevant agencies, to prepare appropriate emergency plans**
- To ensure that robust management arrangements are in place to implement these plans**
- To recognize that all involved with the management of events (including employees and volunteers) need to be trained in emergency procedures, be assigned to, and understand, their specific roles, should an incident or emergency occur**
- To be aware that the initial response to an emergency may be the responsibility of the event safety management**
- To recognize the importance of testing these plans in the most practicable way**

4.1 As part of the overall event planning process, it is important to understand the need to plan for health and safety related incidents and emergencies. It is also necessary to plan for disruptive influences which might occur during the various phases of an event for which contingency arrangements may be required. The aim of these plans should ensure a return to normal levels of service where it is possible to do so.

4.2 An event contingency plan deals with issues around the venue and the ability of the event to take place or continue. Developing and implementing these plans should be the responsibility of the venue and/or event management. Such plans may cover issues such as:

- what to do if an event is cancelled prior to it opening, or indeed abandoned
- how to inform attendees, and other relevant people, if the event is to be rescheduled
- identifying key messages and information (who is to say what, when, where and to whom regarding the rescheduling)
- engaging with the media, if this is necessary, about the revised schedule
- using social media to disseminate information quickly
- taking actions to reduce risks

Incidents that might require a contingency plan include:

severe weather conditions, especially high winds and high temperatures
flooding
equipment failures
communication system failures
loss of services or utilities failure
loss of control point/event control
crowd related issues (e.g. overcrowding or minor disorder)
loss of key staff or disruption to key performances
disruption to traffic/transport arrangements

4.3 It is important to recognize that different organisations may have varying interpretations for the terminologies of major incident plan (MIP) or emergency plan. It will therefore be important to ensure common understanding. Historically a MIP has been interpreted as an incident requiring the implementation of special arrangements by one or more of the emergency services, the NHS or the local authority.

4.4 The Civil Contingencies Act defines an emergency as, An event or situation that threatens serious damage to human welfare in a place in the UK or to the environment of a place in the UK, or war or terrorism which threatens serious damage to the security of the UK. To constitute an emergency this event or situation must require the implementation of special arrangements by one or more Category 1 responder.

4.5 What we may therefore define as emergency plans exist between the emergency services, local authorities and other key agencies to respond to such emergencies.

4.6 Emergency plans may be generic or specific to certain types of hazards, sites or events. Whilst higher risk public events may require specific emergency plans, existing local emergency plans would typically cover the potential for an emergency at, or impacting upon, other events. Where an event specific plan is appropriate the event organiser will need to work with the emergency services and key agencies, to develop the plan.

4.7 Such a plan may need to cover, for example, incidents threatening human welfare, requiring the treatment of large number of casualties on site, or large scale evacuation. The response to such an incident will be determined by the nature of it, the scale, type and complexity. It is stressed that an emergency for one responder does not imply it will require a full scale response for all emergency services. It must also be considered that relatively minor incidents may have the potential to escalate to an emergency.

4.8 It is important to remember that the general duty imposed by the Health and Safety at Work Act 1974 (HSWA) to ensure, so far as is reasonably practicable, the health, safety and welfare of others. This may include making suitable emergency arrangements for members of the public, contractors and others who may be affected by a work activity, in this case an event.

4.9 Event organisers should therefore make effective plans for dealing with serious or imminent danger in order to protect people. To comply with your legal duties, they should cover all persons working at an event for medical emergencies, rescue or other emergencies.

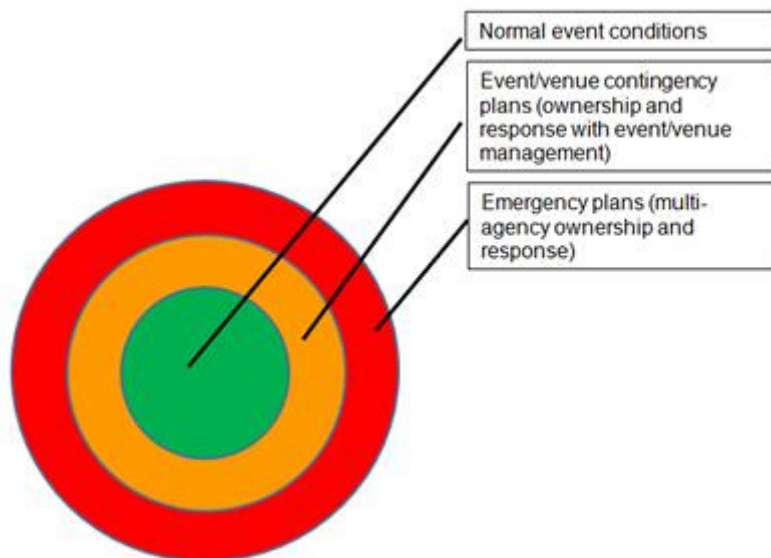


Figure 1: Contingency and Emergency Planning

CIVIL CONTINGENCIES

4.10 The Civil Contingencies Act 2004 (CCA) (and Civil Contingencies Framework 2005 for Northern Ireland) place a range of duties and responsibilities on the emergency services and other agencies. These are mostly beyond the scope of this guide although event organisers should be aware that the police, fire and ambulance services, local authorities, NHS bodies, the Maritime and Coastguard and Environment Agencies must plan for, and put into place, measures for assessing the risk of, and responding to, emergencies. These agencies are known as Category One Responders.

4.11 Bringing large numbers of people, and the associated infrastructure, into rural areas for festivals and other events will clearly require such consideration.

4.12 Whilst some events will be assessed as requiring specific emergency arrangements others will fall within local arrangements. It must be remembered that incidents and emergencies occurring offsite can impact upon events.

4.13 Further guidance on the Civil Contingencies Act 2004 can be found in Emergency Preparedness and Emergency Response and Recovery at <https://www.gov.uk/government/publications>, in Preparing Scotland at <http://www.scotland.gov.uk> and Guide to Emergency Planning in Northern Ireland at www.ofmdfmi.gov.uk

AN EVENT ORGANISERS RESPONSIBILITIES

4.14 Putting into place risk assessed arrangements and plans for disruptive influences and incidents that can be managed effectively utilizing the resources already onsite managed.

4.15 Developing and implementing event contingency plans to deal with incidents and situations as varied as performers cancelling at short notice, severe weather, unavailability of key staff in the team, or incidents external to the site that may cause the event to be postponed, cancelled or abandoned.

4.16 Working with the emergency services and other key agencies to develop arrangements and plans for more serious occurrences that will require the support of the emergency services and the implementation of event specific or existing emergency plans.

4.17 Ensuring that plans for emergency situations set out the overall framework for the initiation, management, co-ordination and control of personnel and other resource to respond to an emergency onsite.

4.18 Recognizing that an emergency situation occurring offsite, but associated with the event, may require a rapid and co-ordinated response by the emergency services already onsite or available to the event. In such a case it may be appropriate for resources previously controlled by the event organiser to assist offsite. In such a case the resource may be placed under the control of the relevant emergency services.

4.19 Agreeing the 'footprint of the site, with the relevant emergency services, in the planning phase. This may typically be defined as being within the boundary of the licensed site although local circumstances may require special consideration. Offsite describes those areas outside of the agreed footprint typically outside of an event organisers control, such as the public highway.

4.20 Negotiating and implementing appropriate protocols and agreements to ensure clarity of the respective roles and responsibilities, between the event management and emergency services, including the potential for a transfer of primacy.

4.21 Ensuring that arrangements are in place for the training of key staff and the testing and validation of plans.

EMERGENCY PLANNING CONSIDERATIONS

4.22 As with the general process of risk assessment, there is no one-size-fits-all solution to the question of planning for emergencies. A suitable plan will be entirely driven by the nature of the event, its location and the numbers attending.

4.23 The list below gives an idea of the types of hazards or threats which might result in an emergency:

a fire or gas leak

bomb threat. The National Counter Terrorism Security Office (NaCTSO) has comprehensive guidance on terrorist action or the threat of such action under the Crowded Places titles the Major Events document is particularly relevant. The guidance series is available at: http://nactso-dev.co.uk/system/cms/files/119/files/original/Major_Events_2011.pdf

structural failures, such as the collapse of the stage

serious crowd-related incidents, such as disorder or crushing.

BASIC REQUIREMENTS OF AN EMERGENCY PLAN

4.24 Most emergency plans will have to address the same basic requirements:

alerting and mobilization of resources

summoning and assisting emergency services

where appropriate (safe) to do so containment of the situation and initial response

moving people away from immediate danger

treatment of casualties

dealing with the displaced/non-injured (e.g. at a festival with camping)

ongoing liaison with the emergency services and other authorities (and where the situation is serious, transfer of primacy for the emergency)

management of public information and media/press releases

PROPORTIONALITY AND ADAPTABILITY

4.25 Plans should be proportionate to the levels of risk presented by the event and the potential extent and severity of the incident or emergency.

4.26 An event with many thousands of people constrained by an enclosed environment (where smoke and fire may spread rapidly) will require a more detailed, robust and rehearsed plan (such as for evacuation) than a greenfield event (where the risks may be lower and evacuation easier).

4.27 Planning and preparation should consider a broad range of foreseeable scenarios and determine what actions should be taken to protect life and, where applicable, property. The community risk register for the area may indicate existing risks, such as flooding, which it may be appropriate to include.

4.28 Given that an emergency may be an unexpected and unplanned event, the response may need to be flexible and adaptable. For instance there is little value in exhaustively planning a detailed fire response only to discover that it is a flood that threatens the safety and welfare of people at the event.

4.29 A good emergency plan will have a clearly defined communication path and decision-making structure. This means the right people can:

- rapidly find out about an incident or threat
- make an informed decision regarding action to be taken
- take steps to tackle and, where possible, contain the situation

4.30 Some actions will consistently apply in many emergency scenarios such as:

- summoning assistance when required from external agencies such as the police, fire and rescue service and ambulance service
- mobilising onsite resources to attend and tackle the incident
- alerting the public and telling staff what they should do

4.31 Where such communication links do not occur the effectiveness of the response may be severely disrupted. See the **Communication Chapter** for further details.

EMERGENCY PROCEDURES

4.32 Such procedures should be developed to be followed by staff and volunteers in the event of an emergency, such as:

- raising the alarm
- informing the public
- initial emergency response
- summoning the emergency services
- show stop procedures
- crowd control, including evacuation where necessary
- evacuation of disabled people
- traffic management, including emergency vehicles
- incident control
- liaison with emergency services
- providing first aid and medical assistance
- preservation of evidence.

PLANNING, INSTRUCTION AND BRIEFING

4.33 It only takes a cursory examination of previous disasters, such as the Bradford Stadium Fire, to recognize the speed and ferocity with which an emergency can develop and escalate (see the scenario in Table 1). It is therefore critical that an event organiser draws up such emergency procedures and informs all relevant people what should be done if such incidents and emergencies occur.

4.34 A key element of emergency preparedness is ensuring that all relevant staff members (including volunteers), no matter what their normal working role, understand what they should do in the event of an emergency. This would include the location of exits, emergency equipment, etc. This does not imply that everyone be briefed individually, it is more about ensuring an overall strategy is developed and then cascaded throughout the organisational arrangements. Irrespective of individual roles in the overall management structure, staff and contractors need to know how to raise the alarm and from, or to whom, they should receive or give instructions.

4.35 On complex sites, individual venue managers, bar managers and others who have control of spaces, and facilities, need to understand the overall plan and their role in it. They must also ensure that everyone working in their venue is briefed on basic emergency procedures and the actions they need to take to protect themselves and to assist the public.

ORGANISATION

4.36 Event organisers should appoint representatives to be responsible for the implementation of procedures in the event of incidents or emergencies occurring. As highlighted, the nature of an emergency is such that it cannot always be predicted, it is therefore important to ensure that the initial response identifies who should be involved in the assessment and decision making processes.

4.37 As the nature of organisations and events will vary, a clear management structure should be in place identifying the key decision makers.

4.38 The type and nature of an incident or emergency will dictate which management team member will take the lead. A typical management structure is set up in a mesh, or similar, format. The example below identifies examples of the key roles that should be covered, though in smaller events there may be a requirement for staff to take on more than one such role or there may be a requirement for overlapping responsibilities. Whatever the agreed arrangements they must ensure that, if any management team member is unavailable or they encounter a situation outside their area of competence, the necessary decisions can still be made.



Figure 2: Example of Management Structure and Key Roles

PARTNERSHIPS WITH THE EMERGENCY SERVICES AND OTHER RELEVANT AGENCIES

4.39 As previously identified for all but the smallest, low risk, events (or those in fixed venues with established procedures), emergency plans need to be drawn up in consultation with the emergency services. Existing procedures may have to be reviewed and revised if a new type or scale of event is planned at fixed premises.

4.40 For such fixed premises, such as stadiums and arenas, discussions will potentially need to include the venue management, police, fire and rescue service, ambulance service and probably local authority emergency planning.

4.41 The detail and complexity of these discussions should be proportionate to the risks involved. The aim is for the organiser, the emergency services, and other agencies, to be clear on what should be done, and who will do what, in the event of an emergency occurring.

4.42 It is a good practice for Safety Advisory Groups (SAGs) to be established. These now exist in most local authority areas. Typically managed or coordinated by the local authority, SAGs provide a forum to ensure a quality assurance process over event planning arrangements, including contingency and emergency planning. Such a

group may be in a position to offer advice over such matters. It will be important for event organisers to cooperate with these groups.

4.43 It may be necessary to ensure agreements with the emergency services on issues such as access and emergency routes to the site, the use of grid-referenced maps, rendezvous points and transfer of primacy from the event organiser to the emergency services.

4.44 If the emergency services declare an emergency onsite at an event, the event personnel and resources may be required to work under the control of the police or other emergency service. Depending on the nature of the emergency it may be appropriate for only a partial transfer of primacy in which case other areas of the event may remain under the control of the event organiser.

DEVELOPING INCIDENTS

4.45 Incidents and emergencies can occur without warning although, in many instances, the event organiser may have to respond to an incident that develops over a period of time and requires an escalating scale of response.

4.46 The pathway below shows one example of the management processes and responses to an emergency. It must be noted that the longer and further the incident develops, the longer and potentially more difficult the return to normality may be. It must be recognised that many emergencies will result in abandonment of the event emphasizing the importance of ensuring robust preventative and initial response arrangements are in place. Normality in the context of events may mean the resumption of normal event conditions or, where abandonment is necessary, normal agency/organisational arrangements.

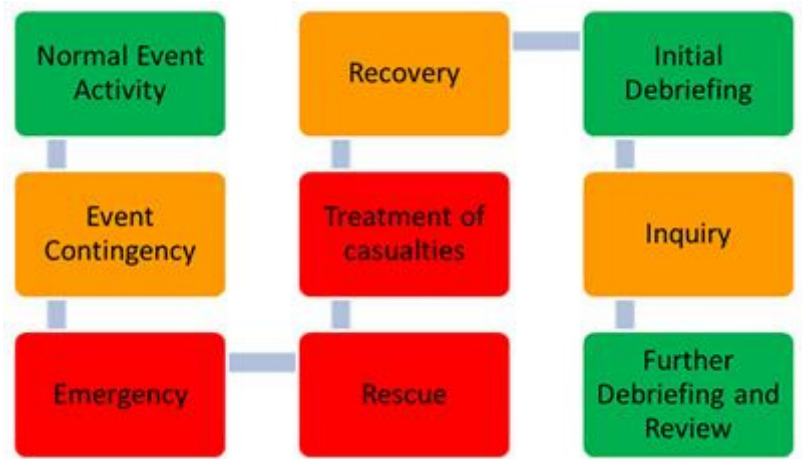


Figure 3: Example of Escalation Pathway

4.47 The scenario in Table 1 shows how an incident may grow from a relatively localised minor incident to a large-scale emergency affecting many agencies. This example is not intended to imply a failure on the part of the event organiser to respond effectively; instead it demonstrates how an incident could develop, and outlines the types of action and planning that may be required.

4.48 Whilst it is possible that this example could have been contained at various points during the development, for the purposes of the scenario, it is assumed that efforts prove ineffective at each stage.

4.49 The scenario in Table 1 is fictitious but not unrealistic. It could develop to the extent that Highways and Environment Agencies are involved in dealing with the aftermath with the incident extending over many days.

Table 1: Example of a Developing Incident

Setting: Early morning on day two of a two-day music festival in a rural location

Incident Progress	Action Taken	Emergency Plan

A volunteer steward reports smoke coming from a car in the car park. They also report someone running away from the scene, back into the event site	Additional staff dispatched to the scene to investigate Stewards report logged	Event staff, including volunteers, need to be briefed on what to do if they witness an incident Put a communication and reporting plan in place. It is unlikely that every steward will have an event radio, so consider how a report will be made quickly and effectively Devise a central point to which the volunteers can report and which initiates 'event control responses (in this scenario)
Staff on the scene confirm that a car is on fire in the car park	Event control dispatch onsite fire resources to the scene For a small event, this may only mean hand-held fire extinguishers Summon offsite emergency assistance	Ensure that fire-fighting resources are deployed around the site and that staff are trained in their use People must recognize when an incident is beyond their control and should not place themselves at risk Establish with the emergency services what kind of response time might be required for offsite resources to be dispatched
Fire spreads to adjacent vehicles	The fire is now well beyond the capability of any onsite emergency response Focus must switch to establishing a safe cordon around the incident	As the incident develops, it is important to obtain accurate and regular information A deputy should be sent to manage actions on the ground while the event manager remains at the event control If everyone heads to the incident, it is difficult to make/consider strategic issues in the face of immediate operational concerns Identify staff to 'meet and brief the emergency services. Ideally to continue ongoing liaison Consider need to establish crisis communication team
Fire threatens live-in vehicles within the car park	Staff must sweep through the car park and ensure that all people sleeping in vehicles are removed	The situation has now become very serious and a large number of people and resources need to be rapidly deployed. This might mean

		waking people who are off-shift or redeploying staff from other functions The role of a central communication/decision-making event control is critical Awareness of the incident will rapidly become widespread across the site
Fire and rescue service arrives with one tender, but is unable to gain access	Special resources will be required to clear vehicles that have parked in the access lane to the car park	Ensure that all risk areas of the site are accessible to emergency vehicles Agree access routes with emergency services Implement plans to remove vehicles blocking emergency routes
LPG cylinders in a live-in vehicle ignite	Exclusion zone established around the incident	Assess in advance how car parks are set out. Separate camping and living vehicles from ordinary car parking
If not already determined emergency declared by fire and rescue service	Fire and rescue are responsible for identifying the inner cordon and for the health and safety of all those operating within it. Police will co-ordinate the response Authority for the management of the emergency is transferred to the police The event manager will remain in control of all other areas of the site not immediately affected by the incident	Make available site resources to facilitate response – e.g. putting staff at the disposal of the incident commander to help with crowd management Determine with the emergency services what happens on the rest of the site Immediately abandoning the show may simply result in a rush towards the car park, which is the very thing that must be avoided While the emergency services will have their own plans for dealing with fires, casualties, etc, the organiser still has a critical role in supporting that response and in discharging a duty of care to people onsite Consider large scale evacuation of the site, or a large part of it Devise methods of quickly and effectively getting information to the public/staff at the event. Determine what will be said

Location declared a crime scene by police following the report of someone running from the initial incident	Particularly if there have been casualties, the police will have a duty to investigate whether a crime has been committed and attempt to identify the suspect, who may still be on the event site	Co-operate with the police and others in their investigation Witness statements, incident logs and other key evidence may need to be gathered By this stage, the incident will have attracted media attention (along with camera-phone footage and messaging broadcast from onsite) This will lead to pressure on the event organisers and emergency services for statements and a requirement for information from relatives and friends of those onsite If there have been serious injuries/fatalities, the way to handle these inquiries must be carefully considered. Media releases are usually co-ordinated by the police A media plan is an important element of any emergency plan
Car park inaccessible to departing patrons	If the car park is unusable because of ongoing fire service and police operations, there will be huge implications for people who remain on site	Activate contingency plans for alternative routes offsite, transport, or accommodation for people who can no longer leave the site? Co-ordination with the local authority may be needed to enact contingency and civil protection related plans. This could include setting up emergency shelters for displaced people The response period to the incident will be causing fatigue problems for the event organiser; consider deputies or relief teams
Planning for transfer of primacy to event management	The use of a multi-agency approach around the return to normal in sharing staff and information	The staffing to re-open the area will be needed – this might be outside the timing of event The persons returning may be displaced persons, who may have been separated from their vehicles or items such as keys, ID and phones

		There may be need for access from insurance assessors
Security stewards staff recovery of vehicles	The management here will be different, as in a 'normal situation there would not be isolated cars. Return may be outside event times	Some cars will be damaged and need recovery or even disposal There may be damage to the site grounds, such as scorching or water damage
Hand back to site team	The vehicles have now all left and recovery 'return to normal is the return of the area to the owner	The 'return to normal could also happen during event timescales, with damaged and destroyed vehicles and security cordons removed during the event prior to end

4.50 This example illustrates how the emergency response must be flexible and adaptable, reaching into all areas of site planning, staffing, resources and briefing. At each stage the key factors are effective communication (internal and external), and a command/management structure that allows effective decision-making with an ever-wider number of organisations.

4.51 It will be appropriate to consider that disruption to the event, large scale incidents and emergencies will have the potential to result in crises for key agencies and event organisers. The UK Civil Protection Lexicon of Terminologies defines a crisis as 'an inherently abnormal, unstable and complex situation that represents a threat to the strategic objectives, reputation or existence of an organisation. It will therefore be appropriate to consider ensuring that appropriate crisis response and crisis communication plans are in place.

EVACUATION

(see also [Chapter 6](#) Communication and [Chapter 13](#) Crowd Management)

4.52 In various types of emergencies it will be necessary to rapidly disperse staff and the public away from imminent danger, for example a fire within a fixed venue. In such an instance the enclosed nature of the event means that people are at grave and imminent risk from the fire itself and combustion products (smoke and toxic gases).

4.53 The emergency response should provide for getting people out in a rapid, orderly but overall safe manner, and in summoning external assistance as quickly as possible.

4.54 In most established venues, automated detection and alarm systems provide a rapid and effective means of alerting the public and initiating dispersal.

4.55 It must be noted that the full use of the emergency exits is most likely to require use of stewards to lead the public not only outside but, if necessary, to identified areas of relative or total safety. This may require the activation of an emergency response which will be coordinated by, or in cooperation, with the emergency services.

4.56 In temporary venues, festival sites and adapted premises used for occasional entertainment such automated systems may not exist or be limited. It will therefore be necessary to augment or wholly introduce other means, such as the use of loud hailer (see also [Chapter 6](#) on Communication). This section focuses on how a rapid evacuation might be initiated and safely managed.

4.57 As emergencies can develop very rapidly, it is essential to ensure that suitable means of communication are in place along with procedures to move people to a place of relative or total safety within agreed escape/evacuation times.

4.58 It should be remembered that for large crowds, and in certain environments, evacuation may be inherently dangerous and hugely disruptive. As such, the option to partially evacuate or invacuate (move within the site) should also be assessed. For scenarios, such as the potential for overcrowding or crushing such a partial evacuation is likely to be the most appropriate option.

4.59 It is likely to be inappropriate to evacuate a stadium based on a single unconfirmed smoke detector alert, or an entire event site based upon an incident in a single venue, or in part of the site that could be isolated. Such an evacuation would be challenging to manage, disproportionate to the level of risk and potentially pose greater threat to human welfare than the incident itself. Such an inappropriate evacuation could also impede the emergency services response.

4.60 Should it prove necessary to consider the option of a full-scale evacuation for a complex event site this must be assessed against alternate options. It is far more important to consider the needs of each localised area or venue within the overall premises and develop plans for evacuating people to places of relative safety within the event site.

4.61 To achieve this, it is necessary to identify open holding areas and maintain routes to those areas so that the public can make its way to them from the venue or part of the venue affected. Exit points, signs, lighting (during hours of darkness) and staffing to allow people to leave individual premises or areas of the site will all be required. This all requires due consideration of how to keep people as safe as possible as well as the offsite options.

4.62 On larger sites, one area may need to be evacuated while normal operations and entertainment continue elsewhere. If it is safe to do so, it is almost always best to continue with core event operations where the emergency can be localised, contained and managed.



ESCAPE ROUTES

4.63 It is important to plan escape routes and ensure they remain available and unobstructed. Signs may be required for those people unfamiliar with these routes.

4.64 All escape routes should be sufficiently illuminated to ensure that people could use them safely in the event of an emergency during the hours of darkness.

4.65 Emergency lighting should comply with the requirements of BS 5266-1, and be able to run from its own power source (e.g. a generator) in case the mains electricity supply fails.

4.66 Lighting can be supplied by way of floodlighting, lighting towers, etc. It is however important to ensure that temporary lighting provided does not shine in peoples faces along the escape route as this can impede movement. As an alternative, festoon lighting installed along an escape route prevents glare.

4.67 In some instances, it may be necessary to evacuate people to a place of relative safety from where they can then proceed to a place of total safety.

4.68 An evacuation plan should show how additional assistance could be provided to disabled people, those with limited mobility, and children, in the event of an emergency.

4.69 Where children are separated from their parents, as in creches, play areas etc., arrangements should be made for their safe evacuation. As parents will normally try to reach their children, even if this means going against the normal direction of escape, they should be advised of these arrangements when leaving their children.

4.70 All doors and gates leading to final exits, as well as site exits themselves, should be available for immediate use at all times. Checks should ensure they are:

unlocked – if security is an issue they should be staffed not locked
free from obstructions
open outwards in the direction of escape

NB: For further guidance on fire exits and strategies see the Department for Communities and Local Governments [Fire Safety Risk Assessment Guides: Large and Small/Medium Places of Assembly and Open Air Events and Venues](#)

SHOWSTOP

4.71 Effective response to incidents and emergencies can sometimes mean a rapid and controlled halt to a performance to prevent further risk to the audience or to initiate an evacuation.

4.72 It should be considered that an audience may be slow to react with a performance underway. Indeed the most effective means of getting an audience to take action may be with a message from a performer.

4.73 Show stop procedures should be an integral part of an event emergency plan and may be the subject of a separate contingency plan or crowd management plan. The process of Showstop is described in more detail in [Chapter 13](#) on Crowd Management.

4.74 Essential to any showstop process is to also have in place a showstart process for when it is safe to resume operating conditions.

TESTING AND VALIDATION

4.75 Given that running test evacuations or calling sudden showstops is impractical (and potentially dangerous), it is important to have a means of testing or practising the contingency and emergency plans. Most organisations will be familiar with the process of fire-alarm drills at hotels etc. but, for the reasons outlined above, carrying out an evacuation as a test is rarely appropriate for a large scale event advisable.

4.76 In many cases, validation of these plans may take the form of a tabletop exercise where the emergency services, and other relevant agencies, join together to work through a range of scenarios and establish the effectiveness of their responses. In other cases, tests of event control or communications systems may need to be conducted.

4.77 It is also possible to test the alarm process and opening of the emergency exits by stewards when a venue is open to the public. Such a process will need to be clearly identified to the public present as a test exercise. It should be planned to fit an appropriate timing – perhaps shortly after opening the venue.

4.78 However it is done, the purpose of such exercises and test should include challenging assumptions and ensuring that all those who may participate in a joint response have a common purpose and approach. This could

be as simple as ensuring that they all use the same maps and use common descriptions (think of the stage left/house left confusion).

4.79 While the primary objective of an exercise should be the 'testing' of the plan, it may also identify training or resource issues. Tabletop exercises should be a forum for validating and testing joint plans and forging a coordinated approach to emergency and non-emergency situations. It should not be seen as an opportunity to put an event organiser on the spot.

4.80 The timing of tabletops or other validation tests should ideally strike a balance between plans being sufficiently advanced to be tested and having enough time left to make changes due to lessons learned during the process.

5. Medical

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

Key Points

Ensuring that there is an appropriate level of medical, first aid and ambulance provision at an event that will minimise the impact on local NHS services

Undertake a medical, ambulance and first-aid resource assessment

A medical staffing plan should be made prior to the event to ensure that staff are deployed appropriately

Medical provision should be provided for the full duration of the event, including build up and break down

5.1 The aim of this chapter is to set out the responsibilities of an event organiser to ensure appropriate medical, ambulance and first-aid provision is available to all those involved in music and similar events, whatever their type and size. All event organisers need to minimise the effects of their event on the healthcare resources of the local population. By arranging high-quality event medical facilities, there should be minimal impact on local NHS ambulance services, primary care and acute hospital provision. However, it is acknowledged that even the best-equipped on-site facility may need to transfer some patients to hospital.

5.2 The Health and Safety (First-Aid) Regulations 1981 require employers to provide adequate and appropriate equipment, facilities and personnel to ensure their employees receive immediate attention if they are injured or taken ill at work. These Regulations apply to all workplaces, including those with less than five employees and to the self-employed. What is 'adequate and appropriate' will depend on the circumstances in the workplace which may differ during the build up, running and break down of an event. Event organisers should carry out an assessment of first-aid needs to determine what to provide for employees and, although the Regulations do not place a legal duty on employers to provide first-aid for non-employees, the HSE strongly recommends that non-employees should be included in this assessment and that appropriate provision is made for them. It is the event organiser's responsibility to ensure the availability of medical, ambulance and first-aid assistance as appropriate for all those involved.

Further information can be obtained at <http://www.hse.gov.uk/firstaid/index.htm>

5.3 The number of people requiring medical treatment at any music or similar event will vary considerably with the activities being undertaken, along with the environmental conditions surrounding the event. Even at small, low risk events, there is the possibility of collapses or other medical emergencies. There is extensive evidence demonstrating the importance of rapid life-saving first aid in these circumstances. There should, therefore, always

be provision of first aid at every event, regardless of size. The range of medical conditions can also vary enormously and there should be adequate capability to manage a wide range of traumatic and medical situations, varying from the trivial to the life threatening. Special consideration needs to be given to drug and alcohol issues, along with psychiatric problems.

5.4 It is important to ensure that the spectrum of care is available, commensurate with the size of event. This may encompass the competencies of doctors, nurses, paramedics, ambulance and first-aid staff, who bring different skill levels to the event. At a small, low risk event, it is likely that provision will be first-aid based. At larger or prolonged events consideration should be given to the provision of an on-site pharmacy, as this can relieve pressure on the on-site medical facility.

5.5 At events that run over several days, such as music festivals, general practice conditions such as vomiting and diarrhoea or infections of the ear may present. Appropriate general practice services will need to be provided on-site so as to avoid unnecessary impact on local NHS resources. This will need to be linked to access to pharmacy services on-site or locally.

5.6 This chapter will review the various aspects of event medical, first aid and ambulance provision, starting with the planning process before the event, moving through the event itself and into the post-event phase. The principals outlined within the chapter relate to large and small events, and a proportionate approach should be taken.

EVENT PRE-PLANNING

MEDICAL, AMBULANCE AND FIRST-AID RESOURCE ASSESSMENT

5.7 In order to ascertain the skill mix and how many personnel will be appropriate, it is important to undertake a medical, ambulance and first-aid resource assessment. Consideration needs to be given to:

- how many people are expected (staff, audience, participants etc)
- who may need assistance
- what may cause their injury/illness (from severe weather to participation in extreme activities)
- how likely is the problem to occur (unlikely through to certain)
- how serious their injury/illness may be (minor through to death)
- what control measures may be used
- what is the history of the event

5.8 For some events there will be a need for just a few first aiders working from a suitable base. In other cases, several first-aid posts, ambulances and a site hospital may be required, with staff on-hand with the full skill mix – from first aiders to medical consultants.

5.9 It is important to establish the terminology to be used for the various facilities on-site so that all staff consistently refer to the facility using the same words, e.g. at large events there may be a 'medical centre' and a 'site hospital' and all staff need to be clear about which is which in order to assist customers. The Cabinet Office UK Civil Protection produce a lexicon of terminology which event organisers may find of use.



APPOINTING A COMPETENT MEDICAL, AMBULANCE AND FIRST-AID PROVIDER

5.10 Before contracting a medical, ambulance and first-aid provider for an event, it is important to ensure that they will be able to supply what is needed. It is good practice to take up references from other customers who have used the provider for an event of similar type and magnitude. Check that they hold appropriate insurances and ask questions about some of the events they have covered. For example: Did they do all of the medical, ambulance and first-aid provision, or just provide a handful of staff to support the main provider?

5.11 If the event needs staff that must be on the professional registers of the Health and Care Professions Council, Nursing and Midwifery Council or General Medical Council, it is advisable to check that their registration status is correct.

5.12 If the event requires ambulances in England, the provider may be required to be registered with the Care Quality Commission for the provision of some services. The various registrations can normally be checked via the organisations' websites.

MULTIPLE MEDICAL/FIRST-AID SERVICES PROVIDERS

5.13 The majority of events can have their medical needs covered by just one provider, however this may not be the case at very large (and/or long) events. Where more than one supplier is required, it is important for all the providers involved to be aware that they will be working alongside other organisations and agree, in writing, that this is acceptable. There will need to be very clear written roles and responsibilities, as well as which provider is covering which particular area and who is to be the senior medical officer (or similar title) for the event. It may be that the most straightforward way to split this cover is for one provider to cover a particular area (e.g. campsites).

5.14 If more than one ambulance provider is required, it is beneficial for their control to be undertaken from one central point to ensure no duplication of dispatch.

MEDICAL PLAN

5.15 The medical plan should give outline details of the event and the resource assessment from the medical risk assessment in 5.7, clearly stating:

the name and roles of the provider(s)

the skill mix of staff, with numbers of each

start and finish times of the cover

the name of the medical manager, their contact details and other relevant contact information

the intended receiving hospital(s) for casualties from the event, along with confirmation that they have been advised of the event (if appropriate)

5.16 Except for small low-risk events, organisers should not rely on NHS ambulances to convey patients from site to hospital. Plans should cater for conveyance of all casualties from the scene to the hospital as part of the medical provider's service.

5.17 The plan will also need to be communicated to the regional ambulance service, even if they are not involved. This document should be available to the licensing authority in sufficient time to assist with the licence decision-making process, if requested – usually presented via the Safety Advisory Group (SAG) (see The Guide's chapter on Planning, Management and Risk Assessments).

5.18 The Medical Provider should consider liaising with the local Acute Trust Emergency Liaison Manager. An exchange of contact details is also recommended in the event of advice or guidance being required on-site.

PLANNING

NAMED MEDICAL MANAGER

5.19 One person with responsibility for coordinating the medical provision should be named and available on-site for the majority of the event. This should preferably be someone from the primary medical, ambulance or first-aid contractor, although the responsibility for having appropriate levels of medical, ambulance and first-aid cover at the event will always remain with the person/organisation purchasing the service. At large events it is inappropriate for the medical manager to be involved with the clinical decisions being made, as it detracts from their primary role.

CONFIRMATION

5.20 All details of cover being provided should be made in writing. The medical plan should include an information-sharing protocol agreed between the named medical manager, senior medical officer and the event safety manager where one is employed. Medical providers should ensure that injuries occurring on-site are reported to the event safety manager, who needs to be aware of accident trends, to enable any remedial actions to be implemented.

SPECIFIC CONSIDERATIONS

QUEUING

5.21 It may be necessary to provide medical, ambulance and first-aid facilities for the queues at large events. This will depend:

- on expected numbers of attendees
- how long they are likely to queue for
- the season
- the time of day
- extremes of weather

5.22 Thought should also be given to assisting crowds leaving at the end of an event.

INFORMATION

5.23 Attendees should be able to access first-aid assistance readily and all medical facilities should have appropriate signage. All staff on-site should be briefed as to how to summon assistance for customers and also the locations of the various medical facilities.

CAMPSITES

5.24 At events where caravan or camping sites are part of the organised event, consideration needs to be given to the provision of appropriate 24 hour first aid and medical services.

LOCATION

5.25 First aid and medical services should be readily accessible to the attendees of the event.

VEHICLE MOVEMENT

5.26 Every effort should be made to avoid conflict between vehicle and pedestrian movements. Prior to any vehicle movement into crowds there must be agreement from event control/organiser; there should be full prior liaison with security and stewards.

SITE ACCESS, EGRESS ROUTES AND STERILE ROUTES

5.27 It is important to plan, identify, record and share information about the accepted access and egress routes for the emergency vehicles that may be required to attend the event in case of a medical incident (event contingency plan) or a major incident plan (See chapter 4). This route may have shared elements with other routes around the event, but should always be kept clear and not blocked by parked vehicles at any time.

5.28 Rendezvous points (RVPs), marshalling and the location of any other holding areas should be shared with all staff within an event to assist a smooth flow to any incident, whether major or not. Ambulance control rooms and area managers surrounding the event should be aware of these areas prior to the event, as should the other emergency services, where appropriate.

5.29 Emergency vehicles must be able to access any point on the site in an emergency situation, including locations just outside the site where event related incidents might occur. The stewarding plan should aid this point.

LIAISON WITH TRAFFIC MANAGEMENT PLANNERS

5.30 When a site is being designed, consideration should be given to providing sterile routes for emergency vehicles, especially ambulances. In order to ensure that the emergency route is appropriate and able to be kept free-moving and uncompromised, close liaison will be necessary with traffic management planners. At the times at which traffic is likely to be heavy around the site (main ingress and egress times) it is imperative that traffic management plans ensure that emergency vehicles may still be able to move freely. Any change to the routes prior to the event should be shared with the emergency services to ensure on-duty personnel and the emergency service's control room are aware of the amendments.

5.31 At larger events, the medical provider should be part of the traffic management sub-group for continuity and be able to input medical priorities and routes surrounding the event site.

5.32 Vehicle recovery/support should be discussed and agreed with the traffic-management planners in the case of extreme wet conditions to ensure that ambulances are not compromised, especially if a patient is on board.

FOUR WHEEL DRIVE CAPABILITY

Provision of four wheel drive ambulances and other response vehicles should be considered.

AIR AMBULANCES/HELICOPTERS

5.33 If it is appropriate to plan for the arrival of an air ambulance, a designated landing site should be identified and marked (reference will be needed to the Civil Aviation Authority Regulations/Air Navigation Order). The eight-figure grid reference of the helipad should be available before the event so that it can be readily passed on to the air ambulance if it is called to attend.

5.34 An on-site reconnaissance visit prior to the event maybe required and this should be made in conjunction with the medical provider and site manager.

5.35 Not all air ambulances are able to land during the hours of darkness and this should be taken into account when preparing a medical plan.

DURING THE EVENT

SITE BUILD AND PREPARATION

5.36 During the period of site build, there are likely to be many workers from a number of different employers on-site, often undertaking hazardous tasks, e.g. working at height or with electricity. Tight production deadlines may also increase the risk of accident in this period.

5.37 Provision of first-aid services during this period is covered by the Health and Safety (First Aid) Regulations 1981. The legal obligation is on each individual employer with staff working on-site to ensure that appropriate cover is in place for their staff.

5.38 Particularly for large events and sites it is good practice that the promoter makes provision for first-aid cover for the entire site, taking into consideration numbers of staff working, work activities, hours of work and any particular site hazards (e.g. water hazards, distance to hospital, weather conditions). If this is the case, all contractors should be given information on how to access these services. For large sites, it should be remembered that accidents might require the attendance of first-aid staff at distant parts of the site. A procedure should also be put in place for summoning NHS ambulance assistance if required and how an arriving ambulance will be guided to the incident.

COMMAND, CONTROL AND COMMUNICATIONS

5.39 A key success factor is ensuring there are robust and reliable communications that are essential to effective medical service provision. All medical resources should be coordinated by a control facility set up by the medical provider. The Medical control should have clear lines of communication to the event organiser and the NHS Ambulance service. At larger events the medical control should be an integral part of a multi-agency control.

5.41 A protocol for the use of radio equipment, including consistent call signs, should be agreed before the event. A communications plan detailing the medical communications links should be produced and held at both the medical control point and incident control room, and shared with the NHS ambulance service for the area. It is important that the medical channel is separate to the rest of the event controls to ensure timely dispatch of medical resources when required.

5.42 If there is more than one medical facility, there will usually be a main medical facility. Where possible, this should have an external telephone line (which does not go through a switchboard) and a list of appropriate useful numbers. All other medical facilities should have an internal telephone or radio link to the main position.

5.43 At smaller events, there is still the need for a communications plan for medical services, and the principles remain the same. There should be named people responsible for medical/first-aid services who already have clear contact links established with the overall event organiser and the NHS ambulance service. This can be as simple as an exchange of telephone numbers pre-event, so should an incident occur, the communication pathways are already established.

5.44 It is important that one person is identified as the lead and with overall responsibility for medical, ambulance and first-aid provision for the event. For the larger events, they will coordinate medical resources during the event and ensure there is sufficient medical, ambulance and first-aid cover in place during the build up and breakdown. In the event of the NHS ambulance service being requested (if not already on-site), or the declaration of a major incident, this person would be the liaison point between the site medical provider and the NHS ambulance service.

5.45 All communication relating to medical, ambulance and first-aid requests and deployment should be documented and kept as part of the overall event records (see Paragraph 5.82).

5.46 Communication tests should be undertaken on-site pre-event and off-site with the NHS ambulance service for the area. Each day a test should be undertaken before commencement of the event and documented.

MEDICAL AND FIRST-AID PROVISION

FIRST AIDERS

5.47A first aider is a person who holds a current certificate in first-aid competency, issued by an organisation that meets the HSE guidelines on first aid training – see <http://www.hse.gov.uk/firstaid/first-aid-training.htm>

5.48 First-aid requirements should include:

the ability to recognise and manage common conditions; competence in the use of Automated External Defibrillators (AED)
safe manual handling of patients
evidence of Disclosure and Barring Service (DBS) checks or local equivalent, in accordance with current government standards
evidence of training in the safeguarding of children and vulnerable adults.

The holding of a Health and Safety at Work, or three-day First Aid at Work certificate, does not in itself qualify a person as competent to administer first aid to the public at events.

MEDICAL PRACTITIONERS – DOCTORS

5.49 A medical practitioner is a doctor who currently has a licence to practise with the General Medical Council of the UK. The competencies required of the event doctor(s) will vary according to the nature of the event. A medical resource assessment will determine the type and level of care required. Where the resource assessment indicates that specific advanced skills may be required, such as trauma management, the practitioner engaged should hold a valid and appropriate competence, such as Advanced Trauma Life Support or Pre-hospital Trauma Life Support, amongst others.

5.50 If primary care for event spectators is required, the doctor engaged should be competent in managing conditions/injuries that commonly present at those events. Where a doctor is deployed to provide medical management at major incidents, they must hold a valid competence, such as Major Incident Medical Management and Support (MIMMS).

NURSES

5.51 A registered nurse is a person who is currently registered with the Nursing and Midwifery Council (NMC) having undertaken and successfully completed an approved education programme.

5.52 The competencies required for nurses may vary according to the nature of the event. A medical resource assessment will determine the technical competencies, together with the type and level of care required. Competencies include dealing with emergencies in pre-hospital or accident and emergency care.

PARAMEDICS

5.53 A paramedic is a person who is currently registered as such by the Health and Care Professions Council (HCPC).

5.54 The competencies required by paramedics may vary according to the nature of the event. A clinical assessment will determine the type and level of care required. The paramedics' scope of practice must be such that they can demonstrate that they meet the standards as detailed in the paramedics' Standard of Proficiency, as issued by the HCPC.

EMERGENCY CARE PRACTITIONERS

5.55 An emergency care practitioner is a registered nurse or paramedic who has extended skills as a result of post-registration qualifications. Courses will have been completed in:

minor injury
minor illness
advanced patient assessment
autonomous emergency practice

Additional educational courses in the following may also have been taken:

advanced life support
pre-hospital trauma course
conflict resolution
emergency driving
thrombolysis
prescribing

AMBULANCE PERSONNEL

NON-EMERGENCY PATIENT TRANSPORT

5.56 Competencies required:

hold the relevant class of licence for the vehicle being driven
first aid (as defined in first aiders, paragraph 5.47)
skilled in the use of a range of lifting and patient-handling equipment
the appropriate use of oxygen and analgesic gases
airway management

Drivers of non-emergency transport vehicles shall hold the relevant licence and competence to drive such vehicles.

EMERGENCY PATIENT TRANSPORT

5.57 In addition to non-emergency competencies, emergency transport personnel shall show competence in:

the assessment and management of emergency patients, as defined by their professional registration
Drivers of emergency transport vehicles shall hold the relevant competence to drive vehicles in emergency (blue-light) situations

AMBULANCES

5.58 An ambulance is defined in law as a vehicle that is 'constructed or adapted for no other purpose than the carriage of sick, injured or disabled people to or from medical centres or places where medical or dental treatment is given, and is readily identifiable as a vehicle for the carriage of such people by being clearly marked iAmbulancei on both sides.' (Source: Vehicle Excise and Registration Act 1994.)

5.59 Accordingly, an ambulance should not be used as a first-aid post at an event. It should be at the event to convey patients from an incident on the site to an appropriate on-site healthcare facility, or, where the condition of the patient requires transfer off-site, to take the patient to a designated hospital. It is not acceptable to routinely call for an NHS ambulance for transport to hospital, as this places an unacceptable burden on the surrounding healthcare services. First aid and medical provision should be structured in such a way that the event is not compromised when an ambulance leaves the site. This will normally be through the establishment of a fixed treatment centre or first-aid post alongside the ambulance provision. Patients should be transported appropriately as indicated by their medical condition, with a crew skilled to a suitable level.

ON-SITE MEDICAL AND FIRST-AID FACILITIES

5.60 The number, role and location of on-site medical facilities should be planned to provide suitable capacity and ease of access. This should take into account the provision of other services on-site, such as fire, police and welfare. Larger sites may require more than one facility. The role of each facility should be planned around workload and illness/injury severity expected throughout the active phase of the facility.

5.61 Suggested roles include:

First-aid post or unit –an area capable of providing first aid and basic life support. This area should have immediate access to an Automated External Defibrillator (AED) and should have staff trained in the use of this

equipment

Minor injuries/illness unit – an area capable of providing an extended spectrum of care beyond that given in the first-aid unit. As such, it should have more comprehensive diagnostic and treatment capabilities. Staffing and equipment should reflect this extended care. Basic life support capabilities and immediate access to an Automated External Defibrillator should be in place. This type of facility should have the capability of short-term patient observation

Medical centre – an area housing a full medical centre providing care that may include, but extends beyond, the care given at a first aid or minor injury/illness unit. The centre should be able to provide triage, assessment and primary care. It should also be capable of providing advanced techniques with regards to critical illness and major trauma assessment, and resuscitation. As such, it should be equipped and staffed appropriately

Specialist triage areas – an area close to a large crowd site where the following factors make medical care difficult: noise levels or other environmental factors

potential for casualty presentation with a serious injury

potential for multiple casualty presentations in a short time



5.62 Specialist triage areas include the pit area of a stage. They should be capable of hosting first aid and minor injury care, as well as the ability to triage large numbers of patients with an emphasis on safe but rapid discharge. In addition, there should be the capability to identify and provide immediate care to patients with a critical illness or injury. This includes assessment, stabilisation and provision of immediate lifesaving interventions. For this type of patient, there should be an unhindered rapid evacuation route to an appropriate on-site medical facility for further care, or to the off-site sterile emergency route. Plans for rapid evacuation of a casualty from these areas should be known by security and production staff who, in the event of a time-critical emergency, should offer all assistance possible to remove the patient. Personnel appropriately trained for the wide range of roles that the facility may undertake should staff the area. Staff should be rotated on a regular basis because of the nature of the environment.

5.63 The area terminologies given above are suggestions only. The naming of each facility is at the discretion of the medical provider. However, the role of each centre should be clearly understood by the medical provider and the event organiser. The chosen name for the facility should not mislead the public with regards to its capabilities. Not every site will require all the above services.

5.64 If different types of facility are present, reliable lines of communication between units and a robust referral system should be in place to upgrade care from one centre to another. There should be safe transfer arrangements to make this plan possible. This will ensure that patients are streamed to the most suitable facility, with relevant staff and equipment to provide necessary care.

5.65 Factors to take into account when considering facility position include, but are not restricted to:

pedestrian and vehicle access routes and one-way systems

- location of main camping sites and entertainment/production areas
- anticipated crowd movements and density
- location of other medical facilities
- location of welfare facilities
- ground conditions in adverse weather conditions, e.g. mud, flooding

5.66 When setting up a medical facility, it should:

- be of an adequate size for the anticipated throughout
- be easily accessible for patients who self-present on foot and patients who arrive at the unit on an ambulance trolley or in a wheelchair
- have adequate hard standing or parking facilities for ambulances and other emergency vehicles. The position and nature of this should assist the rapid loading and offloading of patients in and out of the medical facility.
- Appropriate measures should be in place to prevent inappropriate pedestrian access to this area
- provide a suitable patient waiting area that protects patients from the environment. This should be separate from the clinical working area in order to protect patient confidentiality
- have working areas of adequate size within the facility to allow patient treatment to take place, e.g. around an ambulance trolley
- have working areas that contain suitable worktops or tables for equipment and documentation
- be set up to maintain patient dignity and confidentially
- be provided with appropriate medical and resuscitation equipment for the designated role of the unit. This should be separate from the equipment carried on ambulances
- have areas to store equipment, drugs and medical gases in an appropriate, safe and secure manner
- be maintained in a clean and hygienic state
- hand cleansing facilities must be provided
- have easy access to the clinical waste area
- be designated a non-smoking area
- have an area for staff rest during shifts. This should be away from clinical areas

5.67 Agreements on role, position, layout and provision of equipment should be made between the event organisers and the medical provider in the planning phase before the event.

SPECIFIC CONSIDERATIONS FOR THE MAIN MEDICAL FACILITY

5.68 If there are multiple medical facilities on-site, one should be designated as the main unit. This should ideally be the facility that can provide the most comprehensive care. If all facilities on-site have the same role then the most appropriate unit should be selected based on other factors, including location.

5.69 The main medical facility should have a clear communication line with the joint command and control to allow free flow of information. It should be able to function as a casualty-clearing station in the event of a major incident. However, this role may need to be reallocated to another unit should the main facility be inoperative because of the incident.

STRUCTURES AND INFRASTRUCTURE

5.70 Medical facilities may be engaged in resuscitative efforts and lifesaving interventions at any time. For this reason, event organisers must make the set-up and maintenance of the medical infrastructure a priority before and throughout the event.

5.71 The medical facility should be set up in an appropriate permanent or temporary structure. Temporary structures should be erected in accordance with accepted safety standards. For both temporary and permanent structures, the following infrastructure should be in place:

- the structure should be able to withstand adverse weather conditions
- appropriate hard flooring should be in place. This should be even and stable

the structure should have effective heating that can be controlled as required
an adequate and safe electrical supply should be provided. There should be enough sockets to run all equipment, both medical and non-medical, within the unit. Medical equipment should have a back-up battery in case the electrical supply fails. If it is impossible to provide an adequate power supply, a plan to charge and change batteries of medical equipment should be in place
the unit should be well lit
there should be an adequate water supply, ideally with hot and cold-running water. However, it is understood that this is not possible on all sites. Cold-running water or bottled water are alternatives, but all efforts should be made to provide the above
there should be a supply of drinking water. Again, this may have to be bottled
there should be easy access to toilets with appropriate attention to wheelchair access. Public toilets and staff toilets should be separate
the unit should have facilities to clean patients if required. For example, patients contaminated with stool or vomit
suitable clinical waste and sharps bins must be provided in all clinical areas. Appropriate arrangements must be made for the safe on-site storage of full waste containers, and their appropriate disposal in line with current legislation (Hazardous Waste Regulations 2005)
a suitably licensed contractor should ultimately dispose of clinical waste; documentation relating to this disposal should be retained in case of future query.

STAFFING PLAN

5.72 A medical staffing plan should be made prior to the event to cover both static medical facilities and mobile medical teams. Staffing should take into account training and experience so that appropriate personnel are deployed to the most appropriate areas. The following factors should be taken into account:

staffing numbers should reflect the expected workload, but there should also be contingencies for times of unexpected high workload
contingencies should also be made to cover unplanned staff shortages to ensure safe medical cover continues
inexperienced staff should be supervised at all times and must have had appropriate training
medical staff should not normally work alone
Medical staff should not undertake another role e.g. stewards being classed as first aiders
the working pattern of any staffing plan should take into account breaks during shifts and an appropriate rest period between shifts. Contracted staff should work within the limits of the European Working Time Directive. For safety reasons, it is recommended that the staffing plan for voluntary staff be based on the European Working Time Directive too.

PSYCHIATRIC CARE

5.73 If appropriate to an event, consideration should be given to the provision of a mental health team, with expertise in the assessment and management of psychiatric emergencies and substance misuse. If a team is to be provided, at least one medical facility on-site should contain an area to manage this type of patient. This area should take into account all the infrastructure considerations of any medical facility, with particular attention given to ensuring this psychiatric treatment area is quiet. If possible, it should be separate but very close to a medical facility. Liaison with local mental health services should take place in the planning phase of the event. Robust referral pathways for people with immediate mental health needs that cannot be safely managed on the event site should be set up. This should include a provision for assessment under the Mental Health Act and conveyance to a place of safety. All planning in this area should be done with the involvement of the psychiatric medical provider.

MOBILE RESPONSE TEAMS

5.74 The use of mobile response teams should be considered, especially for larger sites or where access to specific areas on-site is potentially difficult e.g. in large crowds. The teams should have predetermined roles with regards to on-scene clinical management and transport of patients to an appropriate on-site medical facility. Equipment and training should reflect the type and role of each team. The most appropriate form of transport should be used (e.g. foot, bicycle, vehicle). If vehicles are to be used, the drivers must have a full UK driving licence for the class of vehicle being operated. For the safety of the public, the vehicle should be driven within pre-

defined vehicle guidelines and the speed set by the festival organisers, regardless of the nature of the emergency. The teams should be in radio contact, with a control unit ideally dedicated to mobile-response team tasking and control. Liaison should take place with security/stewards when vehicles are being mobilised into crowded areas.

MAPS AND PLANS

5.75 A detailed map or plan of the site should be available in advance of the event. To avoid miscommunication, on-site groups and agencies should be working from this single map. The map should use grid coordinates, e.g. a letter and number system. Larger-scale versions of specific crowded areas of the map should be provided, if appropriate. The position of all static medical facilities should be clearly marked, as well as site access and egress routes, sterile routes and planned helicopter-landing sites. Copies of the maps should be immediately available for external agencies in the event of a major incident or emergency, and correlation of the chosen grid system with the British National Grid system should be known.

WELFARE

STAFF

5.76 Arrangements should be in place to ensure the welfare and wellbeing of medical staff. The extent and nature of these facilities will be determined by the nature and duration of the event.

5.77 Consideration should be given to the provision of:

- suitable rest areas separate from clinical areas and appropriately shielded from excess noise levels; heated or cooled as necessary
- access to suitable refreshment facilities, again separated from clinical areas
- access to suitable washing/showering facilities at prolonged events
- suitable sleeping accommodation at multi-day events. Consideration should be given to the sleep requirements of staff working night shifts, for whom accommodation on-site might not be suitable

AUDIENCE

5.78 Arrangements should be in place for non-medical welfare services that may be required by event-goers, the extent and need of which will be determined by the nature, duration and location of the event. Specifically, medical providers should not be expected to be responsible for lost children, nor is it appropriate for them to be held at a first-aid point for any length of time.

5.79 Thought should be given to appropriate safeguarding arrangements, both for children and vulnerable adults; pathways should be established for onward referral to external agencies if appropriate (e.g. Social Services if child protection concerns have been identified).

NB: See Guide's chapter on Information and Welfare for further guidance.

LIAISON WITH WELFARE SERVICES PROVIDER

5.80 Close liaison with the events welfare provider, where present, both before and during the event, is key to successful working. Consideration should be given to the relative locations of medical and welfare services, given their mutual co-dependence.

5.81 Where patients may be referred directly to welfare services, written agreement should be in place regarding the types and conditions of patients that welfare services are prepared to accept and look after. While some patients may be referred to the welfare service for rest and recuperation, other discharged patients may have mobility difficulty in returning to their campsite or in getting to the car park if they need to leave. Consider if any support/transport is available. The welfare service is unlikely to be able to arrange this. Consider the need to be able to provide basic information to friends/relatives who are concerned that a missing friend might be ill/injured and be treated by the medical service or taken off site to hospital.

DOCUMENTATION

PATIENT-RELATED INFORMATION AND RECORDS

5.82 Medical providers should ensure that they comply with the requirements of the Data Protection Act 1998 and the obligation for patient confidentiality when considering what information they collect from patients, who has access to it, and how it is processed and used.

RIDDOR REPORTING REQUIREMENTS

5.83 The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) place an obligation on employers, the self-employed and people in control of work premises to report a specified list of injuries and occurrences to the Health and Safety Executive. Agreement should be reached between the medical provider and the event organiser as to how patients meeting these criteria will be identified, and how information will be passed to the event organiser (who has a legal duty to report it). Sharing of information in this way falls within the definition of 'appropriate use' for the purposes of data protection legislation.

5.84 Any accident affecting an event worker, even if not RIDDOR reportable, should be communicated to the worker's employer and recorded in his or her own accident book. Normal practice would be to remind the event worker of this responsibility.

MEDICAL LOG

5.85 The medical provider should maintain an up-to-date log of all patients seen. This is invaluable in providing timely information to the event organiser about numbers of patients treated and those removed to hospital.

5.86 It should also allow early identification of any trends in the nature of illnesses or injuries presenting, and allow remedial action to be taken by the event organiser, where appropriate.

5.87 The other purpose of this log is to assist in dealing with enquiries from police and other agencies in respect of missing or lost persons.

THE IMPORTANCE OF CORRECT AND FULL COMPLETION OF DOCUMENTATION

5.88 Medical records made at the time of a patient's presentation are often required at a later date to assist with investigation into accidents or when dealing with insurance claims. It is important, therefore, that they provide a full and accurate record of that episode of patient care. The bodies responsible for registering healthcare professionals in the UK (GMC, NMC and HCPC) all produce guidance on standards of documentation. Medical providers should ensure that they meet these standards.

5.89 Once completed, medical records should be stored in secure conditions in a filing system that allows for easy retrieval in case of query. There are varied retention schedules for different types of record and current best practice guidelines, such as those issued by the Department of Health in England, should be adhered to.

INTERFACE WITH EMERGENCY SERVICES

5.90 Discussions should take place between the medical provider and the NHS ambulance service to enable calls that are received from the event, made by members of the public, to be redirected to the medical provider on-site via the on-site control.

5.91 Pre-event site visits for the emergency services to view the site is good practice. This enables considerations for the emergency services coming to the site to be agreed and for the event provider to seek advice and guidance as required.

MAJOR INCIDENTS

5.92 This section should be read in conjunction with **Chapter 4** on Contingency and Emergency Planning.

5.93 A major incident can be defined as any emergency that requires one or more of the emergency services to implement special arrangements. Event medical providers should consider that they might have to provide an

initial response to a potential major incident. They will also have to supply intelligence on which the decision to declare a major incident can be made by the emergency service representatives overseeing the event.

5.94 Once a major incident is declared, the statutory ambulance service for the area in which the event is being held becomes responsible for the management of the NHS response to the incident. It is important that the arriving NHS staff are aware of the key personnel on-site to liaise with and whether the event medical provider has commenced effective triage and initial casualty management. Clear communications between the on-site provider and the NHS ambulance service are key to ensuring effective handover and coordination of the incident. As soon as appropriate command elements of the statutory ambulance service are on-site they will take over management of all the event medical provider's staff and assets.

5.95 At large events it is best practice that a Handover of Responsibility document is drawn up between the statutory ambulance service and the event medical provider ready for use should a major incident occur. This will detail when the assets of the medical provider were handed over to the statutory ambulance service for the duration of the incident. Part of the document will also outline the hand-back procedure when the recovery from the major incident commences.

5.96 When drawing up the medical plan for large occasions, event medical providers should allocate major incident roles to staff. They should consider how they would initiate triage and start casualty management pending the arrival of the statutory service in sufficient numbers.

AFTER THE EVENT

STAND-DOWN OF MEDICAL AND FIRST-AID SERVICES

5.97 Just because an event has finished does not mean that the medical and first-aid services can stand down. The risks change and, depending on the size of the event, the focus can move to crowd egress, car parks, transport hubs, park-and-ride sites and external roads. Medical providers should pre-empt this stage of an event by moving cover to ensure effective response can be made to car parks and external roads.

5.98 The control room (if established) will remain operational during the whole of the egress period, as it is not unknown for road-traffic collisions to occur on exit roads, or public disorder to break out when egress is perceived to be slow.

5.99 The senior officers of all agencies should keep the egress under review. The key point for the medical provider is when the statutory ambulance service will accept the risk back for the local area and the site. This decision is largely based on the state of the local road network and whether emergency vehicles can access the site against all the traffic leaving.

5.100 Stand-down of medical and first-aid services should be agreed by all agencies and logged.

SITE BREAKDOWN

5.101 Most event organisers will commence the breakdown of their site as the last member of the public has left. The risks change back to a building site, but are heightened by the desire to vacate the site in the fastest possible time. Many different contractors may be on-site, all with their own pressures and priorities. There can also be a considerable amount of traffic exiting the site including concessions, amusement rides and large transporters.

5.102 It is essential that the medical, ambulance and first provision for the breakdown is considered and agreed within the overall medical plan, as this period can run for days or even weeks. It is not unknown for a different medical provider to be contracted to cover the breakdown and, if this is the case, it is essential that there is a seamless transition.

5.103 Issues for a medical provider to consider in relation to the site breakdown include:

- level of cover required for the risks

- ability to move around the site

- if the control room (if established for the event) is still functioning

special risks, such as working at heights, crane and forklift operations
Collation and future management of patient records

5.104 It is very important that a medical provider captures all the patient records and control logs from any event. This can be challenging when a number of first-aid posts or resources are stood down at differing times.

5.105 In large events with high-anticipated casualty numbers, the medical provider should consider having one or more casualty-tracking staff. This role should be the focal point for enquiries from the event control and the police. The tracker(s) should have real-time information on the numbers of casualties being treated and their locations within the medical-treatment facilities. Information in relation to casualties will not be divulged, except to the event health and safety officer, the police and the event organiser.

5.106 The medical provider is responsible for collating all the casualty information into a post-event medical report and ensuring the safe storage of the records. It is essential that all records are accessible, as claims for injury can take weeks/months to be received by event organisers, and the solicitors involved will require the notes. (Refer to 5.82)

EVENT MEDICAL REPORT

5.107 The event medical provider should produce a medical report of the event for their client, usually the event organiser. In the event of the provider being sub-contracted by another provider, relevant information should be passed to the lead medical contractor who should be preparing a report.

5.108 An event medical report should have a number of well-defined headings, but clearly its layout and content will be defined by the size and type of event. Some likely headings are:

- introduction and summary of the task
- resources and capability delivered
- casualty statistics
- issues identified in the medical plan
- wider event issues
- recommendations for future similar events

INVESTING IN LESSONS LEARNED

5.109 Lessons will be learned from any event and it is important that medical providers draw on those experiences relevant to their operation. With recurring events, it is important that this information is used to inform the planning process for the next occasion. From the standpoint of the medical provider, the lessons may be related to shortfalls in manpower or equipment that would need addressing before the next time.

5.110 Identified shortfalls of equipment are of considerable importance because the type and range of casualties should have been considered and planned for appropriately during the medical resource assessment.

Click here to view [practical examples of medical provision at events](#)

6. Communication

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

- Supply employees and others who might be affected by work activities with information on the risks to their health and safety**
- Provide staff and visitors information about what to do in an emergency**
- Ensure proper co-operation and co-ordination of all those working onsite. Effective communication will help achieve these goals**
- Assess the communication requirements of all the organisations involved in the event, including handling routine health, safety and welfare information and communicating effectively in the event of an emergency**

6.1 Effective communication is crucial if an event is to run smoothly and safely.

This chapter explores key communication issues from four main perspectives:

- communication from the event safety officer and event safety management team
- communication with joint agencies
- communication between staff/workers
- public information and communication

And in four time frames:

- prior to the event
- during the event
- in an emergency
- post event

6.2 Table 1, below, identifies a number of potential solutions to the communication questions that face many organisers. Dependent on the scale and type of event, some solutions are not available to all organisers.

	Pre Event	During Event	Emergency	Post Event

Safety Officer / Team / Inter Agency	Meetings Documents Table Top Briefings Site Visits Planning Conferences SAG	Joint Control Conferencing Meetings Briefings Liaison Officers Radio Meal Times Phone (Land/Mobile) IT 1-2-1	Joint Control Radio Phone (Land only) IT 1-2-1	Informal (hot) debrief Formal (cold) debrief Multi-agency debrief Incident reports
Staff Contractor Volunteer	Induction Training Documents Briefing Site Visits	Mealtimes Briefing Debriefing 1-2-1 Radio IT CCTV	Briefing Radio 1-2-1 IT CCTV	Informal (hot) debrief Formal (cold) debrief Multi-agency debrief
Public	Marketing Print Online Media Social Media	PA Screens Artiste Staff Social Media	PA / Voice Of God (see 6.29) Screens/Media Artiste/MC Staff Megaphones Social Media	Post-event evaluation survey Social media

Table 1: Ways to tackle communication issues

COMMUNICATION DURING THE EVENT-PLANNING PHASE

6.3 The design of the communication network during the event-planning phase should consider a range of stakeholder needs and information requirements including:

Intelligence-gathering about the event characteristics
inter-agency liaison meetings
the provision of appropriate authorisations
preparation of detailed plans for safety arrangements on and off site
commercial arrangements, e.g. ticketing policy, publicity, contracts
information to public not going to event but affected by it, such as local businesses and residents
information to attendees, such as prohibited items, gate time, if there are sales on the day, travel arrangements and so forth.

6.4 It is helpful if everyone involved in planning an event keeps proper records of key planning and key health and safety decisions. Planners should also ensure that relevant health and safety information is communicated to others in a timely and effective manner.

6.5 If IT-based document-sharing systems are to be used, ensure appropriate controls and access to information is in place, and that document-control systems are set up to ensure the most up-to-date plans are shared.

6.6 It should be agreed and understood that information contained on such a website is confidential or privileged and that information is intended solely for the use of the authorised persons or organisations involved in the running or planning of the event and not for public viewing.

PREPARATION OF KEY SUPPORT DOCUMENTATION

6.7 Unambiguous use of language helps to produce clear and reliable communication. Avoid jargon and acronyms wherever possible. Where they are necessary, it is worth including a glossary of terms in the main safety and planning documents.

6.8 Agree terminology to be used by people preparing safety plans, documents and communication procedures in relation to:

- naming control points and key staff

- labelling different types of rendezvous and pedestrian pick-up points

- unique reference labels for key locations within and around the venue

- use of grid systems for maps of venue and surrounding areas

- clear naming conventions for categories of people involved onsite

- compatible terminology for assessing risks and grading levels of urgency

- clear contact protocols for establishing communication.

COMMUNICATION BETWEEN STAFF/WORKERS

6.9 Safety plans should say who does what and when, not just what is to be done.

6.10 Control measures to ensure compliance, such as using checklists, should be in place. Inspection of safety equipment and its proper use is part of the safety management process and is a responsibility of both management and employees.

6.11 Show key routes for vehicles and people, restrictions on access and the location of all event control and communications systems on any maps and site plans. A gridded site plan with letters on the horizontal axis and numbers on the vertical axis for the venue and its immediate surrounds is recommended for all events and sites. This will greatly assist with phonetic alphabet communication of location. This plan should be issued to all agencies to ensure a consistent understanding of the site. Further details on site plans can be found in The Purple Guides [Chapter 3](#) about Venue and Site Design.

COMMUNICATION INFRASTRUCTURE

6.12 It is recommended that at least two different types of communication systems are used and that one of these is a radio communications system. Effective communication, especially during an emergency situation, is often the key to effective management to prevent escalation.

6.13 The networking or meshing of communications systems to increase resilience is recommended, but the level and sophistication of the communication system is set by the nature of the event and the risks that are posed. Wireless networks and dedicated high bandwidth lines utilised for CCTV, internet, file sharing and VOIP should be checked for reliability and security. This can be ensured through the usage of a competent provider.

6.14 Mobile phones should not be relied upon for event communication particularly during emergencies and key times during the event such as the end of the show. This is because high usage volumes by members of the audience can easily result in network capacity being reached and is therefore unavailable.

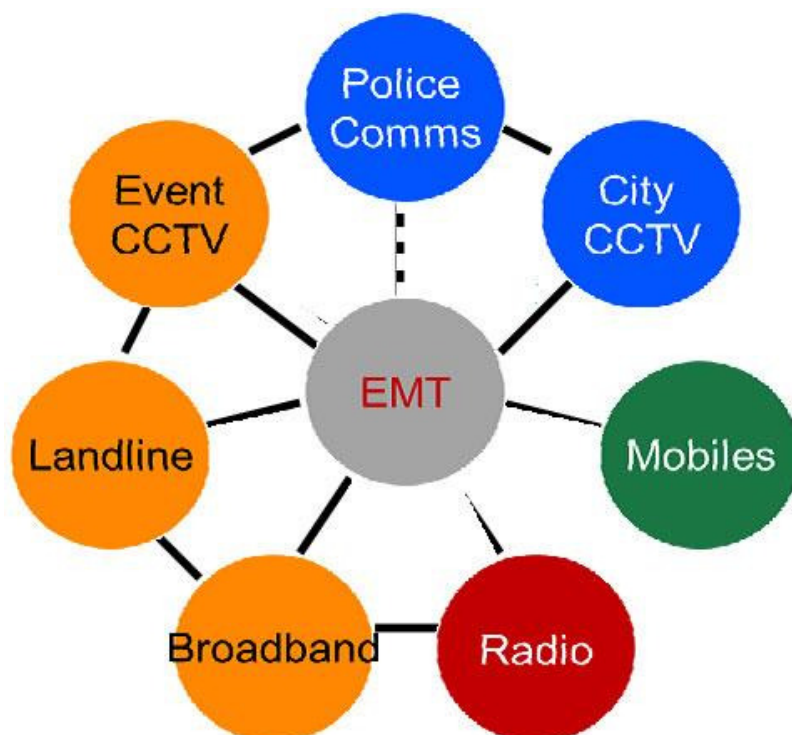


Figure 1: Example of a communication system

6.15 There should be effective communication:

within each organisation (individual emergency services, event organiser, stewarding organisations, local authority) between different agencies (e.g. police to fire service, stewarding organisation to ambulance, venue operator to police).

6.16 Depending on the size of the event, consider appointing somebody to act as a network co-ordinator and single point of contact. This person would receive, collate, cross-check and spread information about radio-channel frequencies, call signs, phone lines, alert cascades, camera points, site of control equipment, contact lists, etc.

6.17 Consider using one or a combination of the following:

face-to-face meetings
radio communications
telephones (and off-site links with emergency services)
CCTV

6.18 It is also worth considering infrastructure issues in relation to your event, including the following:

The nature and scale of the event will determine whether you need to co-locate communications for stewarding/security, emergency services, local authority and first-aid providers in a central event control room / cabin. For events at sports grounds, information on the siting of control rooms is contained in Control Rooms on the Sports Grounds Safety Authority (SGSA) website <http://www.safetyatsportsgrounds.org.uk/publications/control-rooms>

For larger events it is best practice to locate communications from all agencies within a dedicated event control as this facilitates effective communication, smooth operational management and coordinated response to incidents. Links should be available to allow communication between key personnel, particularly between incident control rooms and critical locations and activities.

Ensure procedures and equipment for communicating health and safety information will work during mains power failure.

Decide whether you need to maintain and operate emergency communications from an alternative site (consider contingencies).

6.19 The benefit of face-to-face communication cannot be underestimated and, where possible, the co-location of communications rooms and use of joint control rooms should be recommended. Access to a quiet meeting room in event control with plans and maps ready for meetings by the event management team, is also recommended. This facilitates the effective coordination of appropriate warning and informing arrangements and resilient multi-agency communication.

TABLE 2: LOCATION OF EVENT CONTROL

Table 2: Illustrates why communication between key personnel is vital for achieving the best results.

Example of bad practice	Example of good practice
A double-stack cabin was placed on the perimeter of an arena, some 30m from a PA system. Although this provided an excellent view of the main arena, the sound levels severely compromised radio communications.	A double-stack cabin was placed on the perimeter of an arena, but as far from the PA systems as possible, while maintaining a wide view of the arena. This provided an excellent view of the main arena and ensured the sound levels did not compromise radio communications.

COMMUNICATION PROCEDURES

6.20 Establish clear procedures to ensure efficient communications. These procedures could include:

- a tight radio discipline with proper use of call signs and contact protocols
- recording of communications, if possible using technology based systems that record and log each call
- making the purpose/function of a safety-related message clear, whether it is a question, warning, request for action, command, prohibition, etc
- concise and precise information
- cross-checking that messages have been received and interpreted correctly
- relaying message content clearly and unambiguously
- updating records of communication activity
- keeping accurate logs of decisions and actions
- providing regular updates
- training staff in these procedures so they can use radios
- the planned and proactive use of social media



SITUATION REPORTS

6.21 Develop procedures for relaying information from the scene of an emergency or incident. All such communication should be via Event Control. A practised format helps the information provider to include necessary details for an appropriate response. The Five W's is a standard model:

Who is calling

Where they are calling from (grid reference)

What they are calling about

When the observation took place

Why further action is/is not required

6.22 A familiar communication pattern helps people receiving information to anticipate and recognise items this helps the receiver note the information, ready for subsequent use or relay.

6.23 A situation report format should work equally well for any type of incident. It is worth including the following items of information:

identification call signs, names of calling and called parties

location exact details of where the incident is

incident precise details of what is involved

requirements details of services, equipment and agencies required.

6.24 Acknowledge that these key items have been received and understood before giving further details. If more information is available, items that are important in second or further transmissions are:

warnings details of any hazards (present or potential)

access any details about what might affect access to the scene, or advice on the quickest access route

casualties any details known about injured or sick people

control point details of who to contact and where for more information from the scene

other information anything else that is relevant.

ALERTING PROCEDURES

6.25 Different levels of urgent response may be necessary, for anything from serious injury or sickness of a single person, to a large-scale response to a major incident that requires full and urgent evacuation.

6.26 Accurate information is vital to appropriate decision making. Since each link in a communication chain is a potential source of misunderstanding or breakdown, alerting chains between informants, decision makers and response providers should be as short as possible.

6.27 Alarms or threats will have to be evaluated on their merits, but in those circumstances where the first response is to investigate further, specific instructions or coded announcements (that are understood by staff/workers) should reach all those who have an emergency role. Coded announcements should take the form of a distinctive phrase known to all agencies but be unlikely to alarm or alert the audience. All personnel involved should stand by at designated emergency positions and await further instruction.

PUBLIC INFORMATION AND COMMUNICATION

TYPES OF INFORMATION

6.28 Anticipating public-information needs has an important bearing on safety. All such public information notifications should be cleared by Event Control. Whenever communication to audiences is involved the manner of delivery, tone of voice and terminology used has a direct influence upon how messages are interpreted. Changes in the person delivering information can often be interpreted with suspicion. Wherever possible messages should be scripted and match those delivered across all other communication platforms.

6.29 Consider what information the audience will need if the event is cancelled or ended and how to provide it. This includes queuing lanes, areas of assembly and evacuation areas.

6.30 The timely use of social media and the involvement of appropriate social media professionals connected with the management of the event should be included in public information provision wherever possible. This helps to ensure that messages are coordinated by the event rather than members of the public.

6.31 Well-informed people are less likely to be frustrated, aggressive or obstructive. Advance information on how to get to the venue, where to go on arrival and what will or will not be allowed all reduce frustration and irritation. If you need to communicate rules and restrictions, people are more likely to comply if they are aware of the reasons behind them. Pre-scripted messages can help here.

6.32 For example, to ensure a safe and well-run campsite, provide information on site restrictions on the ticket and in advance information. Use the various information distribution media available to the event to notify campers about where to find important facilities, such as toilets, water, medical facilities, fire points etc.

COMMUNICATION CHANNELS

6.33 Key to communication with the public is real-time provision of information using PA systems, video screens, variable message systems and stewards with loud hailers and even social media. Control and coordination of messages is essential. For larger events, messages about predictable risks could be pre-scripted on both the production and across-site PA systems. (For example, advice about site evacuation in the case of transport failure.) The ability to join all these systems together to deliver a common message, sometimes called Voice of God, is crucial to ensure a coherent message and appropriate response with regards to crowd movement. Messages should be pre-planned and scripted to ensure that any multiple communication platform message works in all contingencies.

6.34 Possible communication channels include:

- publicity material and tickets
- media (press, radio, TV, mobile text, social media)
- route-marking and signs to help with orientation, directions and emergency information
- variable message systems (matrix signs from traffic management provider)
- alarms, e.g. fire alarms
- PA systems/loud hailers
- screens and scoreboards
- face-to-face contact with easily identifiable staff

EMERGENCY PUBLIC ANNOUNCEMENTS

6.35 This section should be read in conjunction with Show stop procedures in The Purple Guides **Chapter 13** on Crowd Management.

6.36 Coded announcements may be needed to alert workers so that they can take up emergency positions.

6.37 Once workers are ready, information can be given to the audience. The public's attention should be attracted by loud and distinct signals (such as two-tone chimes). Make sure you have their attention before giving any information. Keep language simple, and sentences short and positive.

6.38 Instructions should tie in with route markings, signs and other visual cues such as gate or exit numbers, campsite color codes or names. Signs need to be positioned at high level and suitably illuminated during periods of darkness. Announcements need to make clear and specific location references wherever practicable (if possible, avoid relative references that can be interpreted differently, such as away from the front or further back).

6.39 In serious situations, an integrated approach would combine spoken announcements, text displays and directions from stewards.

6.40 People will respond to cues differently and this approach recognizes that some channels are not available to people with hearing or sight impairments. Reinforcement and repetition are needed to keep people on course.

6.41 Key elements should be repeated (what action is required, the nature of the incident, where to go, what to do on arrival). People should be told that this would be repeated as they proceed along their route. If not, they may be afraid of missing information and impede flows by stopping to check, seeking an authority figure to ask, or waiting for a further announcement.

6.42 Keep people up-to-date with the situation, even if no changes have occurred. Telling people that there is no change is still information, pre-empts individual queries and removes pressure from workers. Broadcasts are much easier and much more efficient than individual responses.

6.43 When people have left the venue or part of it, they may need to know when and if it will be restarted, whether and when they can collect vehicles, and what to do if the event is postponed, rescheduled or cancelled.

6.44 Key points for emergency announcements:

test the effectiveness/audibility of the equipment used for making announcements

early warning/timely information is essential

audience persuasion time must be added to movement time

clarity and quality of announcement delivery are crucial

pre-plan key message elements and sequencing

live, directive scripted messages that can be adapted relating to the circumstances are more effective than those that are pre-recorded

give reasons for messages (the nature of problems) where possible

ensure all messages across the communication platforms used are complementary. Conflicting messages cause confusion and irritation.

locating communication facilities by area can help public announcements to be targeted effectively

positive statements and instructions are preferable to negative ones

key items should be repeated (location of problem, required destination, required route etc).

6.45 Multi-agency communication coordination and cooperation

Multi-agency communication coordination and cooperation can be greatly facilitated and enhanced prior to the event by the use of table top exercises.

Such exercises should include the event safety officer and event safety management team, event medical and welfare contractors, the three emergency services, steward / security managers and supervisors, local authority agencies as appropriate and any other agencies who may need to be involved in response to any incidents.

Alongside facilitating the testing of event plans and communication systems the use of an exercise in advance of the event helps to ensure familiarity of the respective roles of each agency whilst also developing inter-personal communication synergies among agencies and stakeholders prior to the event itself.

Chapter 16 of the Guide to Safety at Sports Grounds (5th edition) concerning Communication may also be of use and value to event organisers and is complimentary to this chapter.<http://www.safetyatsportsgrounds.org.uk/>

7. Transport Management

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

Site vehicles and traffic are a major cause of serious and fatal accidents

Assess the risks from vehicle movement onsite at the planning stage of the event and identify what measures are needed to control these risks

Prepare a traffic management plan for internal and, where necessary, external traffic control

Where reasonably practicable, segregate pedestrians and vehicles during all phases of the event

Have a traffic management system in place, incorporating one-way systems where possible

Ensure all drivers are authorised and trained to use relevant vehicles

Ensure all drivers are inducted to site-driving protocols

Minimise the need for reversing

Ensure drivers of work vehicles, banksmen/signallers and traffic marshals are trained and competent

7.1 Under the Health and Safety at Work etc Act 1974 (HSWA), and in particular the Workplace (Health, Safety and Welfare) Regulations 1992, employers must manage workplace transport risks. This chapter focuses on managing workplace transport risks at an event site to ensure that workers and visitors to the site are protected, as far as possible, from being struck by a vehicle and injured.

7.2 Internal traffic management (i.e. not on the public highway) is the responsibility of the event organiser to manage and control, and is one of the areas where incidents and accidents frequently occur because of failures to implement or control traffic movement.

7.3 External public transport matters are also important and need to be taken account of in the traffic management planning, but they are also the responsibility of other agencies, including the Local Highways Authority and the police.

7.4 The Traffic Management Act 2004 places a duty on the Local Highway Authority (usually the Local Authority) to manage the local traffic network, with one of the primary objectives to reduce congestion. This duty, known as the Network Management Duty, requires the authority to manage its roads network effectively to keep traffic moving. Authorities must take account of the needs of all road users, which includes pedestrians, and take action to minimise or prevent problems and consider the implications of works for both their own network and that of neighbouring authorities. The legislation makes it clear that if there is the potential for disruption, the event

organiser should consult with the Local Highway Authority about their event. It is recommended that such consultation includes the police and other emergency services, though this is not set in legislation.

7.5 Closing a highway temporarily for a special event falls under the Road Traffic Regulation Act 1984 as amended; the power in Section 16A of the act is very widely drafted. A traffic authority may restrict or prohibit temporarily the use of the road by vehicles for the purpose of:

- facilitating the holding of a relevant event
- enabling members of the public to watch a relevant event
- reducing the disruption to traffic likely to be caused by an event

<http://www.legislation.gov.uk/ukpga/1984/27/section/16A>

7.6 The act requires the Local Highways Authority to justify the event by ensuring that there is no alternative to hold the event other than on the road.

7.7 It is important to speak to the police, Local Highways Authority and transport providers about external traffic management around the event location to:

- ensure safe and convenient site access
- minimise offsite traffic and transport disruption
- enable infrastructure to be built on the highway
- create a safe pedestrian access
- enable traffic to freely move outside the site
- reopen (return to normal) when safe to do so

7.8 Please note that there are timescales around use of temporary highway closure orders, and that charges for them are made. Early contact with the Local Highways Authority is advised.

7.9 Where appropriate, consult with rail authorities and other transport providers about additional public transport services to accommodate the demands of the event.

TRAFFIC MANAGEMENT PLANS

7.10 It can be useful to summarise and consolidate transport safety information into a single authoritative document, commonly referred to as a traffic management plan. The aim is to ensure safe and convenient site access and to minimise off-site traffic disruption. Agree the plan with the Local Highways Authority and/or Highways Agency through the Safety Advisory Group (SAG), and inform the police. It is recommended that specialist contractors be used for this work.

7.11 Event organisers will be advised that early consultation with the Local Highways Authority is essential, as the planning process, even for small events, can take up to a year. For large events, organisers will be required to form a transport working group involving all relevant authorities, such as the Local Highways Authority, Highways Agency, police, and traffic management contractor. This group, and ultimately the event organiser, has responsibility for developing and implementing the traffic management plan.

7.12 The traffic management plan may, depending on the size of the event, detail such considerations as arrangements for contractor, exhibitor and visitor access (vehicular and pedestrian), on and off-site parking arrangements, consultation with local residents, signage, and exit procedures.

TRAFFIC DIRECTION ENFORCEMENT EXTERNAL TO THE EVENT

7.13 In nearly all cases, only the police or someone under their direction can legally undertake traffic regulation on the public highway and public places. Enforcement is only by the police service.

7.14 However, in some police force areas (but not in Scotland), a Community Safety Accreditation Scheme (CSAS) may be in operation. Under this scheme, other organisations or companies can direct traffic on a public

highway. Check the local area police force website for a list of approved organisations.

SIGNAGE

7.15 Traffic Signs Regulation and General Directions 2002, as amended, provides for temporary signs to be erected to guide traffic to sporting events, exhibitions and other public gatherings which are expected to attract a considerable volume of traffic. In addition, the Department of Transport's Traffic Advisory Leaflet 4/11 Temporary Traffic Signs for Special Events gives advice on the circumstances in which these signs may be used, their design, construction and mounting.

<http://www.legislation.gov.uk/uksi/2002/3113/contents/made>

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/4393/4-11.pdf

7.16 The number of signs provided should be kept to a minimum in order to deliver an effective traffic management plan. Site maps should be produced clearly showing road closures, signage, steward positions and all coded to make identification easier for referencing. Signs are not designed for advertising purposes but to inform motorists of the forthcoming event, assist road safety and help ease congestion.

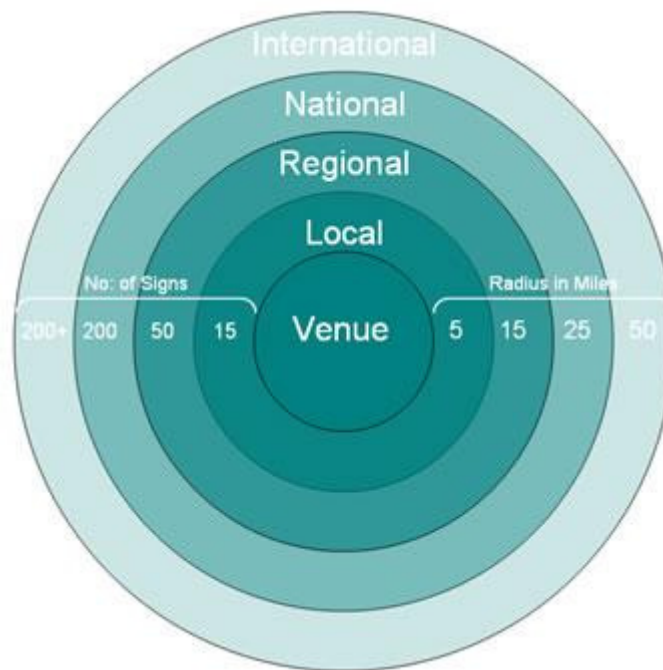


Figure 1: Guidelines for signage

SAFE SITE CONSIDERATIONS

INTERNAL TRAFFIC ROUTES

7.17 Have well-defined traffic routes on the event site that are free from obstructions, and have firm and even surfaces.

7.18 Pedestrians should be segregated from vehicle movements. This may be achieved by organising the available space and/or time and use of the space. Where it is not reasonably practicable to do this, ensure there are clearly marked and visible places for pedestrians to cross vehicle routes. Appropriate use of barriers, railings, etc, to direct pedestrians to designated crossing points can help to reduce the risks.



Picture 1: A demonstration of poor segregation of vehicular traffic in pedestrian areas

7.19 Pedestrians need to know the intentions of anyone driving onsite. Hazard-warning lights should not be used on moving vehicles; it is contrary to the Highway Code and prevents the use of indicators. Where visual warning of vehicles is required, and in particular where vehicles unavoidably have to enter pedestrian areas, it is recommended flashing beacons and/or audible warning should be used.

7.20 Vehicle movements behind a stage can be high risk. Think about ways of controlling vehicle movements in this area and reducing the risk to pedestrians.

7.21 Many people are seriously injured or killed every year by reversing vehicles. Reversing should be avoided by implementing an effective one-way system onsite. If this is not reasonably practicable, segregate pedestrians from areas where vehicles reverse. Trained banksmen/signallers/marshals should only be considered as a last resort to ensure safe reversing.

7.22 Those given the role of directing traffic should be competent to do so safely. For example, they should know about safe positioning to protect themselves, and be aware that a driver's visibility may be impaired when reversing. They should also have suitable personal protective equipment, such as high-visibility clothing.

7.23 When planning traffic routes and any allocated drop-off/pick-up points onsite, take into account the increased turning radius of coaches and buses.

7.24 Assess the venue and entrance/exit capacity for event traffic and put in place measures to reduce congestion problems. If possible, plan alternative routes and accesses. These can be used if main access points or routes become blocked.

7.25 Provide adequate lighting and signage onsite to ensure the safe movement of vehicles.

EMERGENCY ROUTE WAYS AND VEHICLE RENDEZVOUS POINTS

7.26 Plan provision for the entry and exit of emergency service vehicles. Ideally, these routes should be separate and safeguarded. (See [Chapter 3](#) on Venue and Site Design for further details.)

PARKING

7.27 As far as possible, keep parked vehicles out of the flow of traffic and people. Inform drivers where parking areas are as soon as they enter the site. Try to lay out parking areas to reduce manoeuvring and reversing for large vehicles.

Average car occupancy	Car parking (per hectare) (greenfield)	Typical rate of entrance or exit (per minute)
2.2-3.5	320-440	12-20

Table 1: Car parking facts

7.28 Car-parking layout should take into consideration the safe access and egress of pedestrians who have parked, and access for emergency services while the public are arriving and leaving. Access rates will vary dependant on the width of the access, the surface of the access, and the angle the vehicles turn through to enter the site.

7.29 The capacity of a car park will depend on its ground shape and the preparation of the area, as well as the competence of the staff. Also consider parking arrangements for vehicles used by people with disabilities, especially wheelchair users, who will require more space, for other vehicles for example coaches, motorbikes (see para 7.52 7. 56).

7.30 A car park that can hold the relevant numbers of vehicles is of no use if the access (road width or gate) is too narrow and the cars cannot get in to park. Ensure the capacities of the parking areas are adequate and the surface is capable of withstanding the anticipated traffic volume. Consider using hardcore, metal track-ways and/or other suitable temporary surfacing, which can prevent damage to the ground and prove invaluable in wet ground conditions.

7.31 Parking areas need to be lit in the dark. Larger areas should be divided into smaller units with identifying signage, so that people can locate their vehicle later. Coaches need to have their return destination clearly marked.

7.32 Drop-off/pick-up points can get very crowded, especially at the end of an event. This is very important in cases where there is a young audience as large numbers of parents will converge on the venue at close which has a significant impact on egress. Use suitable safety control measures to keep pedestrians away from areas where buses and coaches are manoeuvring. Barriers, signage and queuing systems can all be used effectively to keep people safe, along with an adequate number of marshals.

7.33 The event risk assessment should answer these questions:

- how many vehicles use the event site?
- where do they go?
- what do the drivers do?
- what type of vehicles are they?
- how does parking need to be controlled?
- how will pedestrians be **segregated** from traffic in the parking areas?
- what recovery or towing facilities are available?
- how can the need for **manoeuvring** and reversing be minimised?
- how will safe parking be **enforced**?

NB: For Health and Safety Executive (HSE) guidance on controlling parking areas, see www.hse.gov.uk/workplacetransport/parking.htm

WORK VEHICLES AND AUDIENCE AREAS

7.34 Plan to complete all tasks involving work vehicles in the public areas of an event before the audience is admitted. Clearing the arena of all vehicles should be a pre-condition of opening to the public. Lift trucks are especially dangerous to the public, and as far as possible, the two should be kept apart.

7.35 Where possible, design the sites to allow access to toilets, trader areas, waste or skip collection points by trade vehicles and sanitary servicing vehicles, without passing through areas open to the public.

7.36 If lift trucks or other work vehicles have to operate in public areas, develop a safe system of work and monitor its operation.

MAINTAINING TRAFFIC ROUTES

7.37 As far as reasonably practicable, keep traffic routes and unloading areas free from obstructions and anything that may make a person slip or fall. Spilled loads, anything that falls from vehicles, used packaging and other hazards should be dealt with as soon as possible.

7.38 Walkways and vehicle routes may deteriorate, e.g. due to bad weather. Consider the use of alternative routes where possible or use hardcore, metal trackways and/or other suitable temporary surfacing, e.g. straw, woodchip.

7.39 Routes can also deteriorate due to misuse, i.e. people moving signs and crowd barriers. Have a system in place to periodically check routes and make repairs where necessary.



SAFE WORK VEHICLES

7.40 By law, every employer must make sure that work equipment (which includes workplace vehicles) is safe to use, maintained in an efficient state and working order, and is in good repair.

7.41 Work vehicles should be regularly maintained, repaired and inspected. They should be suitable for the type of work.

7.42 Many events will involve contractors using their own work vehicles. The event organiser should be satisfied that contractors and (through the contractor) any subcontractors have equivalent standards of vehicle safety and maintenance.

SAFE DRIVERS OF WORK VEHICLES

7.43 All work drivers should be capable of operating work vehicles and related equipment safely. This includes commonly used vehicles such as all terrain vehicles (ATVs). Obtain evidence of competence from the drivers or their employers.

7.44 ATVs such as quad bikes have been involved in many serious incidents. Head injuries are the most common cause of death; everyone riding a quad bike should wear a suitable helmet and have received adequate training. Details of suitable training courses are available from franchised ATV dealers, manufacturers websites, EASI (European ATV Safety Institute), Forestry Commission, Lantra Awards and agricultural colleges.

7.45 Trained lift truck operators should have a certificate from an accredited organisation indicating the type of lift truck for which they have received training. The HSE publication **HSG6 Rider-operated lift trucks: Operator training. Approved Code of Practice and guidance** provides practical guidance in relation to the necessary training.

7.46 All operators of mobile elevated work platforms (MEWPs) should have attended a recognised operators training course, and have an operators licence or certificate (e.g. IPAFS Powered Access Licence (PAL) or Construction Skills CPCS card).

7.47 The organiser should provide employee drivers, contractors, subcontractors and visiting drivers (delivery drivers) with appropriate health and safety information so they can work safely. For example, information about the site, speed limits, routes to be used, parking and unloading procedures, etc. Remember, some drivers may not have visited the site before.

7.48 For work vehicles, monitor compliance with safe systems of work, including any speeds limits.



Picture 2: Poor use of a MEWP in the same public area and few minutes later – no risk assessment and training for the user operator

7.49 The HSE publication **Workplace transport safety: An employers guide (HSG136)** provides further guidance on the safe movement of vehicles and pedestrians, vehicle safety and maintenance.

7.50 Further details about managing risks associated with falling from vehicles, avoiding overturns, loading and unloading, coupling and uncoupling vehicles can be found in HSE's Workplace transport safety: An overview (INDG199) <http://www.hse.gov.uk/pubns/indg199.pdf>

7.51 HSE has also produced a [workplace transport checklist](http://www.hse.gov.uk/workplacetransport/wtchk1.pdf) that can be downloaded from the HSE website.
<http://www.hse.gov.uk/workplacetransport/wtchk1.pdf>

TRANSPORT MODES

Rail

7.52 Consult, where appropriate, with railway station and train operators and consider including them in planning meetings. If appropriate, seek advice on additional trains or enhancing existing services to accommodate the demands of the event, and to limit the need for onsite and off-site parking. However, much of this will be beyond the control of the average event organiser.

Coaches and buses

7.53 Planning the arrival and departure of coaches and/or buses can greatly reduce congestion at the beginning and end of a large event. Careful consideration has to be given to the routing of such vehicles. Parking or drop-off areas and access roads should be provided to reduce the need for coaches/buses to reverse, e.g. creating one-way systems.

7.54 It is advisable for event publicity to request that coach and bus operators notify the organiser in advance of their arrival. However, plans should accommodate coach and bus arrivals even where they are unexpected.

7.55 Coaches and buses need firm or metalled routes with wide and easily accessible entrance and exit points, with large turning areas into allocated parking areas. Consider specific arrangements to ensure the free flow of coach or bus routes in consultation with the coach/bus operators, and ensure that this is documented in the traffic management plan.

7.56 Private coach/bus operators are often prepared to provide special shuttle bus services between local rail and/or bus stations. However, shuttle bus systems may not be appropriate for all events. Congestion caused by a natural mass exodus at the end of an event is likely to prohibit free flow of traffic routes and consequently shuttle buses become unable to operate effectively. Consider the potential for dedicated shuttle bus routes or consult local bus operators about enhancing or extending their established services.

7.57 There will need to be communications between transport providers and the event management to ensure that information about changes to the timing of the end of the show (earlier or later) is passed on as soon as possible. Transport providers will also need to be able to inform event management if there are disruptions to the anticipated public transport schedule, so that this information can be passed on to the audience. (refer to para 7.52 -7.53)

Motorbikes and bicycles

7.58 Include parking for motorcycles and bicycles in the traffic management plan. This can be positive, not only ecologically but also because they tend to take up less space. If parking is on a grassed area, can any hard standing be provided for motorcycles to park without falling over? If not, consider having a supply of wood blocks.



Picture 3: Consider areas for visitors to secure their bicycles

Park and ride

7.59 Consider a park and ride service this would need to be included in the traffic management plan and treated in the same way as any other parking area, with signing and staffing etc. The main issue will be with the bus service and ensuring the correct number of buses for the expected crowd, which comes from discussions with a bus company. Remember that an event with a set end time may need more buses for the return trip than the arrival part.

7.60 Park and ride could also cover visitors arriving by train, water or air, and needing onward transport to the venue. (Refer to Para 7.52 7.56)

7.61 Consideration should be given to ticketing park and ride in advance, even if it is free. Otherwise, it can be very difficult to assess take up, affecting the number of coaches required and the suitability of terminals.

Helicopter

7.62 Some venues may offer a landing site for helicopters for arrival and departure of performers, VIPs, pleasure flights and emergency evacuation of casualties. Organisers should contact the Civil Aviation Authority for further advice and information about the control of aircraft. However, the consideration of the risk of fire or aircraft emergency, local hazards and noise generated by the arrival and departure of flights during the event should be considered, and included in the risk assessment and event plan.

Specialist vehicle operation

7.63 The use of golf carts and similar off-road vehicles is common on open-air event sites. It is vital that operator competence is taken seriously, as these vehicles can present a serious hazard to the operator and to members of the public due to excess speed and poor stability on uneven ground.

7.64 During the events preparation, operation and breakdown phases, there will be a number of specialist vehicles that will be operated under the event organisers control. If these vehicles are being used for work activities, Provision and Use of Work Equipment Regulations 1998 (PUWER) and in some cases the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) may apply. The use of all vehicles on site should therefore be carefully planned, monitored and managed to ensure that only competent operators with suitable and sufficient training operate them. Accidents often result from the incorrect or unauthorised use of the vehicle.

Operator competence

7.65 Lift truck operators should not be permitted to operate a lift truck unless they have been selected, trained and authorised to do so. The HSE publication [Rider-operated lift trucks: Operator training. Approved Code of Practice](#)

and guidance provides practical advice in relation to the necessary training. Trained operators will have a certificate from an accredited organisation indicating the type of lift truck for which they have received training.

7.66 Please note - a certificate to drive one lift truck does not qualify an operator to drive other types of lift truck. Do not allow workers to operate lift trucks without checking that they are fully trained for the type of truck they are to use.

Operation of non-specific off-road vehicles

7.67 Ensuring competence might include a minimum age for drivers, a briefing before first use, or even the requirement to hold a full driving licence. These vehicles sometimes lack lighting, making them unsuitable for use after dark. When used in pedestrian areas a flashing beacon and/or horn may be fitted.



Lift trucks and lifting equipment

7.68 Lift trucks or telehandlers are a common sight on event sites. However, there is an ever-increasing need for other types of vehicles to operate onsite or within the events public pedestrian areas, such as ATVs (including quads), golf buggies, cranes, tractors, waste/refuse collection vehicles, bowzers (fuel, liquid waste and/or water) and Mobile Elevating Work Platforms (MEWPs). Organisers should ensure that operators are competent and that the vehicles are suitable for the terrain they are to be employed (for example ground loading).

7.69 If lift trucks are hired, check that the equipment is delivered in a safe working condition, with a current report of thorough examination, which covers adequately the period they will be used on the site/venue. All lifting equipment must be clearly marked with its safe working load to comply with the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER). These regulations also require safe working practices when using lift trucks and/or cranes.

Man cages

7.70 It must be noted that where there is a need to use man cages (which can be fitted to lift trucks or telehandlers for work at height), particular reference must be made to **PM28**, available from HSE, which outlines when they are permitted.

7.71 The Provision and Use of Work Equipment Regulations 1998 (PUWER) cover the use and maintenance of lift trucks. Both LOLER and PUWER require periodic inspections of the vehicle and its lifting equipment. Operators of lift trucks are required to carry out basic before-use checks on a daily basis. Where lift trucks are used by a number of operators and contractors, organisers should ensure the competence of operators and that daily checks are carried out.

7.72 Telehandlers are sometimes used to lift freely suspended loads, for example lifting components into place while building structures, or suspending speakers or video screens. In these complex scenarios, it is vital that competent operators are aware of issues such as wind loads and dynamic loads, and suitably de-rate the telehandlers lifting capacity. Where this type of operation is carried out, a lifting plan should be drawn up and communicated prior to the lift being carried out (further guidance can be found in HSEs HSG150 **Health and safety in construction**).

MEWPS (Mobile Equipment Work Platforms)

7.73 All operators of MEWPs should have attended a recognised operators training course, and must produce an operators licence or certificate (e.g. IPAFs Powered Access Licence (PAL) or Construction Skills CPCS card). These cards clearly identify the holder, the equipment they can operate, and the expiry date.

Cranes

7.74 Cranes may be used at event sites for a number of reasons, for example erecting large marquees, bungee jumping or filming platforms. When employing a crane there are two types of crane hire:

Contract hire the crane hire company will plan and supervise the lifting operation and will be responsible for it being carried out in a safe manner

Crane hire the operator works to the event organisers instructions. The event organiser is responsible for writing the lift plan, supervising the lift and ensuring it is carried out in a safe manner

7.75 Cranes operations must be:

properly planned and prepared by a competent person, who should have adequate practical and theoretical knowledge of lifting operations. Knowledge of the terrain and environment must also be considered in the plan (e.g. overhead power lines and drains); the degree of planning will depend on the lift.

appropriately supervised the supervisor (a competent crane supervisor) must be identifiable, which may mean wearing a different coloured hi-visibility jacket or helmet to the rest of the crew. The supervisor directs work and is able to identify problems, which may occur during a lift; this means he must be able to communicate with the crew in a clear, unambiguous fashion. Everyone involved in the lifting plan must be fully briefed.

carried out in a safe manner the lift should be carried out in accordance with the lifting plan; the person supervising must ensure everyone knows their role and the emergency procedures. Establish load routes, avoid loads being lifted over people, and occupied buildings.

7.76 Organisers may find the guidance given in **The Safe Use of vehicles on construction sites HSG144** and the **Workplace Transport Checklist** (HSE) INDG199 HSG136 may be relevant. <http://www.hse.gov.uk/workplacetransport/wtchk1.pdf>

8. Working at Height

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

Key Points:

Falls from height are one of the main causes of workplace death and injury

Working at height means an work in any place where if there were no precautions in place, a person could fall a distance liable to cause personal injury

Employers should ensure all work at height that they control is properly planned and organised

Work at height should take into account weather conditions that could endanger health and safety

Risk-assess work at height and take steps to avoid, prevent or reduce risks of falls, liable to cause personal injury

Select the right access equipment for the job

Workers should be competent in the work to be done and in the use of the equipment provided

Ensure risks from fragile surfaces and falling objects are controlled

Have an emergency rescue procedure in place to recover anyone who may have fallen and is suspended, e.g. from a lanyard and harness system

8.1 Many people have to work at height during an event, including riggers, lighting, pyro and laser technicians, set builders, camera and fairground operators. Activities include:

assembly and dismantling of structures, such as stages, marquees, temporary seating, broadcasting and camera-position platforms, and amusement devices controls such as edge protection and barriers may need to be in place during construction and deconstruction

operation of television cameras and lights systems from elevated platforms

inspection and maintenance of structures and equipment

breakdown repair of structures and equipment

emergency rescue.

8.2 The Work at Height Regulations 2005 <http://www.legislation.gov.uk/ukxi/2005/735/contents/made> applies to all work at height where there is a risk of a fall liable to cause personal injury. They place duties on employers, the self-employed, and any person that controls the work of others.

8.3 The event organiser must:

ensure that no work is done at height if it is safe and reasonably practicable to do it other than at height
 check that the work is properly planned, appropriately supervised, and carried out in as safe a way as is reasonably practicable

ensure all work at height takes account of weather conditions that could endanger health and safety

plan for emergencies and rescue

ensure those working at height are competent

make sure that the risks from work at height are assessed, and appropriate work equipment is selected and used

ensure equipment for work at height is properly inspected and maintained

make sure that the risks from fragile surfaces are properly controlled.

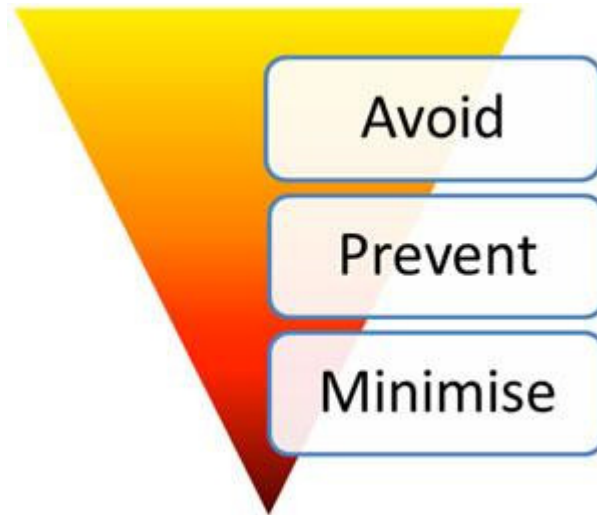


Figure 1: Hierarchy of control measures

8.4 As demonstrated in Figure 1, there is a hierarchy of control measures for working at height:

AVOID so far as reasonably practicable avoid work at height by carrying out as much work as possible on the ground

PREVENT stop people getting to a point where they are likely to fall by use of barriers, mobile elevated work platforms (MEWPs) or safety harnesses with short lanyards. The idea being that, if they cannot get to a place where they can fall, they cant fall

MINIMISE diminish the consequences of a fall by using safety nets, airbags or harnesses and fall-arrest lanyards. In practical terms, stopping a falling person from hitting the ground once he has fallen

8.5 Draw up a plan of rescue to get the casualty down from where he has landed, so it is not necessary to rely on the emergency services. (The emergency services are usually happy to provide advice for a plan.)

COMPETENCE TO WORK AT HEIGHT

8.6 Ensure that everyone involved in the work is competent (or, if being trained, is supervised by a competent person). This includes involvement in organisation, planning, supervision, and the supply and maintenance of equipment.

8.7 Where other precautions do not entirely eliminate the risk of a fall occurring, train those who will be working at height on how to avoid falling, and how to avoid or minimise injury to themselves should they fall.

8.8 Where a falling object could cause injury, endeavour to prevent it falling. Where this is not possible, take steps to ensure sure no one would be injured if it fell.

LIGHTING GRIDS

8.9 Make sure that no loose items are taken into the grid, e.g. by use of pocketless overalls, tie-lines on tools and equipment, etc. Create an exclusion zone below the working area, e.g. by erecting a barrier. In order to enforce

this, use a form of warning system when the grid is occupied. Everybody working in the area should be clearly aware of the system being used.

8.10 Any lighting fixture or other suspended lighting equipment should have a suitable safety chain or safety wire fitted. The weight of any flown lighting equipment should not exceed the safe working load of the securing points. No flown or suspended equipment, including lighting bars and amplification equipment, should rely solely on one suspension cable, clamp or bolt. Each means of suspension should be secured to independent fixing points on the flown equipment and the structure.



RISK ASSESSMENT

8.11 A risk assessment for managing and selecting equipment for work at height should be based on the hierarchy set out below. (See The Purple Guides [Chapter 2](#) on Planning, Management and Risk Assessments for further information on Risk Assessments.)

AVOID WORKING AT HEIGHT

8.12 There are many examples in the events industry where the need to work at height has been avoided by good design. For example, building a stage roof and/or fitting auxiliary equipment to a roof structure at ground level and using a crane to lift it into place.

Example of good design

Following a fatal fall from height at a venue, organisers built a lighting grid system that could be lowered to ground level. Now production crews can install the majority of rigging points, hand trusses, lamps, etc, from the ground.

WHERE WORK AT HEIGHT IS UNAVOIDABLE, USE AN EXISTING SAFE PLACE OF WORK

8.13 Many venues and temporary structures now have permanent stairways and catwalks with handrails, which can provide a safe means of access at height.

PROVIDE WORK EQUIPMENT TO PREVENT FALLS

8.14 Collective measures to prevent falls should always take priority over personal measures to prevent falls. Collective measures protect more than one person at any one time and are passive (i.e. requiring no action by the

user to work effectively).

8.15 There are several different types of collective fall-control equipment with guardrails designed to prevent falls, e.g. scaffolding, ladders, mobile scaffolding towers, podium steps and mobile elevated work platforms, all with various rated capacities, working heights and outreaches.

8.16 Select the right equipment for the planned work. Only competent people who are following a safe method of work should erect, alter and use this equipment. HSE provides a range of guidance materials to assist with the selection and safe use of the main classes of this equipment.

8.17 Further guidance on the safe use of mobile towers can be found in HSE's [Construction Information Sheet No 10](#). For guidance on the selection and safe use of mobile elevated work platforms, see [Construction Information Sheet No 58](#).

8.18 The erection of scaffolding is a specialist activity requiring a high degree of competence. Further information can be found in HSE's publication [Health and safety in construction](#) (HSG150).

8.19 See also the [National Access and Scaffolding Confederation \(NASC\)](#) publications [Safety Guidance SG04:2010 Preventing falls in Scaffolding](#). Also the technical guidance [TG20:2008 Guide to good practice for scaffolds with tube and fittings](#), which deals with the design of scaffolds. Where the standard layout given in TG20 cannot be used, it will be necessary to have a scaffold design prepared by a temporary works structural engineer. System scaffolds should be designed in accordance with the manufacturers recommendations.

8.20 In addition to providing a safe place of work, it is equally important to ensure a safe method for access and exit, e.g. make sure a ladder protrudes sufficiently above the place of landing to which it provides access three rungs or 1 metre should be enough.

8.21 Personal measures to prevent falls only protect the user, e.g. a work restraint system and equipment that includes a lanyard, which must be adjusted or set to a fixed length to prevent the user physically getting to a place where they could fall.

Example

Demands on broadcasters to provide ever more angles of view for spectators and television audiences have resulted in an increasing number of camera positions with challenging access arrangements. In one example, a cameraman was at an increased risk of slipping and falling while climbing over a parapet and turning through 180 degrees to access a low-set vertical ladder fixed to the parapet and camera platform.

The risk of slipping or falling was reduced by relocating the ladder 90 degrees to the parapet and by providing a handrail that extended from the vertical ladder above the edge of the parapet.

To prevent unauthorised access and avoid affecting the spectators view, the handrail was designed so that it dropped below the parapet once the cameraman had descended the ladder.

MINIMISE THE DISTANCE AND CONSEQUENCES OF A FALL SHOULD ONE OCCUR

8.22 Where the risk of a fall cannot be eliminated, use work equipment or other measures to minimise the distance and consequences of a fall. Select the right equipment for the planned work. Again, select collective measures (e.g. nets or airbags) over personal fall protection measures (e.g. fall-arrest equipment/systems).

8.23 As with all work at height, the use of personal fall-protection systems should be appropriately supervised and carried out, so far as is reasonably practicable, in a safe manner by highly trained people. A competent person should check and verify equipment and systems (including anchor points) before their use.

8.24 When contemplating working at height, and in particular when considering the use of a fall-arrest system, employers need to consider any emergency or rescue procedures that may be required, and the drawing up of an

emergency and rescue plan. Guidance on first-aid management for harness suspension when working at height can be found on the HSE website at <http://www.hse.gov.uk/work-at-height/index.htm>

8.25 Further detailed guidance on the safe use of personal fall-protection equipment can be found in HSE information sheet: <http://www.hse.gov.uk/work-at-height/index.htm>

8.26 Rope access work is a highly specialist activity. For further guidance, see **BS 7985:2009 Code of practice for the use of rope access methods for industrial purposes**.

LADDERS AND STEPLADDERS

8.27 Only use ladders and stepladders for low-risk, short-duration tasks. Make sure those who use ladders are trained and competent to do so. For further guidance see the HSE leaflet **Safe use of ladders and stepladders: An employers guide** (INDG402)

MAINTENANCE AND INSPECTION

8.28 Maintain and regularly inspect all temporary access equipment, particularly if it is exposed to the affects of bad weather at an outdoor event. Identify any defective equipment and ensure it is not used

WEATHER

8.29 When undertaking work at height outdoors, weather may be a factor to consider when planning work. Work at height should not be undertaken in weather conditions that could put people at risk of injury



9. Temporary Demountable Structures

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

Key Points:

The failure of any temporary demountable structure (TDS), no matter how small, could have devastating effects. The design, safe erection, use and deconstruction are important parts of event planning

Ensure the design meets the requirements of the structural concept, and the location onsite is appropriate, with a plan of how it will be built (and dismantled) safely

Seek guidance from people who are competent in these structures at an early stage in the planning process

Ensure the structure is built to the agreed design

Safety-critical checkpoints should be identified in the build, and ensure checks are made by a competent person before work progresses to the next checkpoint

Undertake the work safely by having competent staff and a suitable onsite operational management system in place

Make sure there is an independent design check and management system for the control of changes to a TDS, e.g. clients attaching advertising material that affects wind loadings

Ensure there is a suitable maintenance and inspection regime for the completed structure, which will also require monitoring for the effects of wind and weather

Allocate adequate time and resources for each of the above stages

9.1 This chapter aims to provide practical guidance to help those organising events to manage the safe erection, use and deconstruction of temporary demountable structures (TDS). It does not specify a particular way of achieving safety, but sets out a general approach, which should be adapted to ensure that it is proportionate to the scale and complexity of risks associated with the structure.

9.2 While this chapter will complement industry advice, it is not meant to be used in place of BS EN design standards, or more detailed relevant documents such as:

Temporary demountable structures: Guidance on design, procurement and use(3rd Edition) (2007) Institution of Structural Engineers

MUTAs Safe Use and Operation of Temporary Demountable Fabric Structures, Revised March 2015

9.3 The Enforcing Authority Regulations 1998 determine whether it is the Health and Safety Executive (HSE) or the local authority who are responsible for enforcing the erection and dismantling of Temporary Demountable Structures. In most cases, local authorities will enforce on all matters to do with the use of completed TDS, unless it is in use at a local authority event, in which case HSE will be the enforcing authority.

NB: Even though there is a division of enforcement responsibly, expect all health and safety inspectors to challenge unsafe work activity, regardless of when it is happening.

9.4 The requirements of the Health and Safety at Work etc Act 1974 (HSWA) and the Management of Health and Safety at Work Regulations 1999 will apply to the erection, use and dismantling of a TDS.

9.5 Depending on the type of structure, its use and the build process employed, the requirements of the following sets of regulations may apply:

Workplace (Health, Safety and Welfare) Regulations 1992

Manual Handling Operations Regulations 1992

Provision and Use of Work Equipment Regulations 1998

Lifting Operations and Lifting Equipment Regulations 1998

Work At Height Regulations 2005

Personal Protective Equipment at Work Regulations 1992

Control of Substances Hazardous to Health Regulations 2002

9.6 The erection of some temporary structures at entertainment events falls within the definition of construction work in regulation 2(1) of the Construction (Design and Management) Regulations 2007 (CDM).

9.7 Although, HSE policy has been that the CDM regulations do not provide a useful regulatory framework for temporary structures used in the entertainments industry discussions are currently taking place about applying them. The argument for not applying them in the past was that the CDM regulations were specifically drafted for the procurement and delivery of projects in the construction industry. The processes and management arrangements in the entertainments industry are significantly different. (See 'CDM Regulations to be enforced' under News)

9.8 HSE consequently focuses on compliance with the provisions of the HSWA and other related regulations when considering temporary structures at events.

9.9 For further guidance on non-HSWA legislation, including design standards, see the Institution of Structural Engineers publication Temporary demountable structures: Guidance on design, procurement and use (3rd Edition) (2007), section 4 Statutory control.

WHAT IS A TEMPORARY DEMOUNTABLE STRUCTURE (TDS)?

9.10 A TDS is designed to be erected rapidly and dismantled many times. Generally, these structures are only in place for a short time.

9.11 A TDS is widely used for a variety of functions at events. Types of structures include (but are not limited to): tents and marquees, viewing facilities (including temporary seating and viewing platforms), stages, video-screen supports, and sound, lighting and camera structures.

DEVELOPING THE DESIGN CONCEPT OF THE STRUCTURE



TDS REQUIREMENT/SPECIFICATION

9.12 Before procuring a TDS, consider:

What is it to be used for?

What will it need to be able to do?

Who will be using it?

How will it be used?

9.13 Event organisers and those working on their behalf should identify their TDS requirements at the planning stage. Where they may not have the necessary technical competence, they should seek further advice from a competent person, e.g. a TDS contractor/designer.

9.14 It is important that organisers and contractors ensure the concept fully meets the requirements of the end-user, e.g. the artist, and that the end-user has fully understood the limits of the concept, such as location, available floor space, vehicle access requirements, load capacity, budget and available timescales.

9.15 Once all relevant parties have agreed the design concept, it should be finalised and specification prepared. Where possible, avoid taking forward provisional or incomplete design concepts. This can result in structures failing to meet their requirements and will inevitably demand last-minute modification, which could lead to safety problems.

Example of a hazardous last-minute modification

An organiser decided to use a proprietary seating system, designed and engineered to be erected without alteration. However, once installed, it became apparent that the view from some of the front-row seats was obstructed.

A decision was made onsite to lift the stand using scaffolding. Alterations were made without proper design consultation. Once the concert had begun and the stand was in use, the scaffold failed and the stand collapsed.

TDS STABILITY

9.16 To ensure the stability of a structure during erection and use, consider its location and orientation early on in the planning of an event. An organiser and TDS contractor should carefully consider the following factors:

is there enough information about the load-bearing capacity of the ground or floor? Take account of previous ground disturbance, e.g. farmland. Geotechnical engineering assistance may be required for sophisticated

structures and/or unreliable ground conditions.

the possible effects of ground elevation and prevailing winds

is there enough information about the suitability of ground conditions at any structural anchorage point? Pull tests may be required.

is it an adequately drained site? Avoid locations that become unstable due to flooding, as this could cause either the load-bearing capacity of the ground to be reduced or washed away beneath the structural supports.

is the site flat or can it be made flat?

are there overhead power cables, or underground services?

does the proximity of surrounding buildings, structures and vegetation create risks in relation to the possible spread of fire?

are there any gaps or basements under the ground/floor surface?

are there any restrictions on access (and use) for construction plant and equipment?

are any other known hazards relevant to the location?

NB: Consult the Institution of Structural Engineers publication Temporary demountable structures: Guidance on design, procurement and use for more detail.

9.17 Where the site has limitations for TDS use, organisers should provide contractors with site information as early as possible in the planning process, to allow them to fully consider its implications in the design of any structure. If reliable information about onsite conditions is unavailable, allow contractors access to carry out their own site assessment.

ADVERTISING/SCRIM

9.18 Attaching advertising/scrim to a structure can affect its wind loadings and so increase the risk of a collapse or overturn. Where a structure is likely to carry advertising, this requirement should be included in the design concept, specification and structural assessment.

9.19 The event organiser or another nominated person should manage the production and placement of advertising to ensure that it is made of suitable material, dimensioned and placed appropriately.

9.20 The TDS contractor should make it clear which structures are suitable for carrying advertising and what forms of advertising are permissible. Where the TDS contractor has not approved a structure for advertising, the organiser should ensure that no advertising is attached to it.

DEVELOPING THE STRUCTURAL DESIGN

9.21 The next step is to develop a design to meet the requirements of the design concept and specification. In some cases, the TDS contractor will also undertake this design role; as it is outside mainstream civil and structural engineering, TDS designers should have specific knowledge and understanding of:

the type of loads likely to be experienced by a TDS and their effect upon it

the foundations or supports that need to be designed/used onsite

the properties of the materials normally used in their construction

the properties of the proprietary systems (and their structural elements) used in their construction

the work techniques necessary for construction, and the health and safety risks involved with these techniques

9.22 The TDS designer should ensure any design:

follows the recommendations of the Institution of Structural Engineers Temporary demountable structures:

Guidance on design, procurement and use (3rd Edition) (2007) and any other applicable regulation/guidance, e.g. fire regulations and BS9999: 2008 Code of Practice for fire safety in the design, management and use of buildings will maintain stability and structural integrity (including the likely effects of dynamic loading) at all times during erection, use and dismantling

takes workers safety during construction and deconstruction into account

includes materials whose properties and performance will maintain the integrity of the structure, for example during a fire

has considered factors that, although not directly related to safety, could affect audience behaviour and therefore potentially have safety implications, e.g. audience sight lines and climbing structures.

has adequate exits for intended occupancy

9.23 In the case of modular design in a TDS, the process will consist of identifying and verifying the most appropriate modular configuration for the application.

9.24 During the post-concept design stages, it may be difficult for a competent person to ratify a novel or unusual structure using normal design calculations. In this situation, additional modelling or load testing may be required to help identify any foreseeable design difficulties and to demonstrate the integrity of the design.

9.25 Where the TDS is unusual, arrange for a structure rehearsal to allow tour management and crew the opportunity to familiarise themselves with it, and the techniques required to construct and deconstruct it in a safe manner.

9.26 All relevant parties should ensure that any design is realistic in terms of the timescales and budgetary resources available for implementation.

DESIGN VERIFICATION

9.27 The TDS contractor should ensure that a competent person verifies the final design (and any future modifications) independently.

9.28 The TDS designer should ensure that the design process is formally signed off and traceable, including any modifications.

PLANNING FOR ERECTING AND DISMANTLING THE TDS SAFELY

9.29 It is likely that the event organiser will contract a TDS contractor to safely erect and dismantle a temporary structure, and it is important that a competent one is chosen. Ensure that a prospective contractor can:

demonstrate knowledge and understanding of the work and the health and safety hazards involved
provide evidence on the competence of key staff for the project and trained workforce. Crew undertaking specialist roles, such as rigging, should be able to prove that they have the appropriate competencies
confirm they have sufficient resources to undertake the work
provide evidence of previous successful work, which shows they can adopt and develop safe systems of working in the absence of experience of previous work, demonstrate an appropriate level of technical ability.

Membership of an appropriate accreditation scheme or recognised organisation may assist in this regard.

RISK ASSESSMENT

9.30 Ensure that whoever builds the structure (in most cases the TDS contractor) undertakes an assessment of the likely hazards and risks inherent in the techniques required for construction and deconstruction. This may require the TDS contractor to obtain specialist assistance. Key construction and deconstruction hazards may include:

working at height
transport
manual handling
slips and trips
electricity and fire
loading and unloading operations
lifting operations
use of machinery and tools
local activities

NB: For further detail, see <http://www.hse.gov.uk/construction>

9.31 The outcome of the TDS contractors risk assessment should serve as guidance on how to safely construct and deconstruct the structure onsite. This could be in the form of suitably clear plans and drawings and/or photos that identify the sequence of safe construction (and plan for the safe dismantling of the structure).

9.32 A safe system of work should be established for the construction and deconstruction of the structure, e.g. choosing the safest way of working at height.

9.33 The TDS contractor should make erection/dismantling plans and drawings available to those managing the construction of the structure onsite, and ensure those undertaking the work (supervisors and operatives) understand them adequately.

9.34 A programme of works, including key safety checkpoints (hold points), can help to communicate critical erection/dismantling stages to site supervisors and operatives. For example:

after constructing the base of a stage these should be checked by a competent person before work progresses the next step would be to build the lattice superstructure, which then needs to be checked at critical points by a competent person

then the lighting and sound equipment can be installed, all of which would require safety checks before use

TDS BUILD/DISMANTLING

9.35 Before work starts, TDS contractors should inform the event organiser (or those delegated responsibility by the event organiser for the site, e.g. production manager/site manager) of any significant health and safety issues or requirements that may occur during the build, use of, and dismantling of the structure. An example of this would be the use of cranes or forklift trucks.

9.36 In this way, the event organiser can plan and work with the TDS contractors to develop safe systems of working and ensure all significant risks on the site are properly controlled.

9.37 Work to create good co-operation and co-ordination among those involved in building and dismantling a structure. It requires effective communication at all levels see The Purple Guides chapter on Communications. Plan to minimise confusion and conflict, particularly between those contractors carrying out concurrent or consecutive activities on the same structure, or in the locality.

TIME AND RESOURCES

9.38 The TDS contractor should ensure that the structure could be built given the available time and resources. Where long working hours are involved, an event organiser (sometimes through their site manager) should take steps to minimise any associated health and safety risks.

9.39 The agreed erection and dismantling plan should be flexible enough to deal with any delays, e.g. bad weather, without adversely affecting safety.

MONITORING AND REVIEW OF CONSTRUCTION WORK

9.40 TDS contractors should ensure there are systems in place to monitor implementation of the erection and dismantling plan, and intervene in the event of any deviation from the plan that puts people's safety at risk. Any system will require appropriate levels of supervision onsite. Event organisers should ensure the TDS contractor has put these systems in place.



SAFETY CHECKS (SIGN OFF/HANDOVER OF THE STRUCTURE)

9.41 During erection and before use, the event organiser and the TDS contractor should be satisfied that the design specification has been followed. They should complete all the necessary design and safety checks. Specialist structural engineering assistance should be engaged (particularly for structures that are more sophisticated) to help determine this if there is a lack of in-house expertise.

9.42 Upon completion, the TDS contractor should inspect the TDS, and complete appropriate sign off documentation for retention, the TDS should then be formally handed over to the event organiser as safe to use.

TDS OPERATIONAL USE ONSITE

9.43 Once the TDS is erected, operational risks must be managed to ensure people's safety at all times, for example any risks associated with synchronized spectator movements, or overcrowding. Consider any operational limits on the structure in the event management safety plan. See The Purple Guides chapter on Planning, Management and Risk Assessments for more details on safety plans.

9.44 In any organiser/TDS contractor relationship, both parties will have duties under health and safety law. However, a key factor to consider will be the extent of control that each party has over the work activity and workplace during each phase of the build, use and deconstruction cycle of a structure.

9.45 Organizers and TDS contractors should agree the extent of their control at the planning stage, so that responsibility for structural safety is understood and maintained throughout the event.

9.46 The event organiser and TDS contractor should provide other contractors accessing the completed structure (for example during the load-in of lights and sounds on a stage) with details of:

- any incomplete areas of the structure, e.g. voids or missing guardrails
- any ongoing work on the structure
- structural limitations (such as load-bearing capacities and locations, wind loadings) in its current state
- any other risks associated with the structure and work environment, e.g. lighting/electrical/fire

MANAGEMENT OF ADVERSE WEATHER CONDITIONS

9.47 Almost all TDS used outdoors are susceptible to the effects of constantly changing climatic conditions and so appropriate management systems should be in place to:

- monitor and measure the local weather conditions
- define and deliver a plan to deal with variable loading conditions that can affect the structure and exceed the safe working parameters of the structure, e.g. changing ground conditions due to prolonged rain can significantly affect

the resistance offered by ground anchorages (the ground conditions and anchorages may need reassessment by specialists)
take action if required.

9.48 One of the greatest hazards to structures such as marquees, big tops, stages and audio-visual support is the wind. Most of these structures are designed to be safe for use up to a certain wind speed. The event organiser and contractor should be clear as to the value of this wind speed and the wind-management plan required, ensuring the TDS stability at all times.

Ensuring TDS Stability
What contractors should do? TDS contractors should accurately specify the performance limits of the structure and any action (such as opening or shutting flaps). What the organiser should do? The organiser should ensure that conditions are monitored on site and take appropriate action.

9.49 Venues using large TDS should be fitted with an appropriate anemometer to allow monitoring and recording of local wind speeds. Typical wind management plans will define action levels, based on local wind-speed readings. These readings will dictate the need for modifications, such as removing sheets or blowout panels to maintain stability and minimize the risk of component failure, or when the structure and surrounding area should be evacuated.

9.50 The design parameters for structures on the event site may vary from type to type. The action levels should be noted and key staff made aware of the procedures.

9.51 Other climatic conditions to take into account when using a TDS include:

rain and its effects on the ground and any anchorage
load from pooling rainwater on a structures roof
snow and the impact of snow load
the effects of a lightning strike

LIGHTNING PROTECTION

9.52 The risk from a lightning discharge can happen at any time so should form part of the event risk assessments. It is split into four categories and should be built in to the risk assessments for an outdoor event where structures are erected:

- L1: Risk of loss of human life this is the primary consideration in the application of any assessment in the UK
- L2: Risk of loss of service to the public this can relate to power supplies to emergency services, hospital and medical facilities, etc., where loss of power will be detrimental
- L3: Risk of loss of cultural heritage this must be considered when staging an event in historic or large buildings, or large ornamental gardens
- L4: Risk of loss of economic value where a strike could cause a fire or structural damage

9.53 Any exposed metalwork should be connected to the main earth terminal. It is advisable that any freestanding structure is considered for protection from lightning strikes. Any steel work, aluminium structure or even wood structures (when wet) can act as air rods for a discharge.

9.54 While the metalwork can be bonded to the earth electrodes or plates, a lightning discharge does not travel as easily along horizontal conductors or metalwork.

9.55 It is advisable to place any lightning protection at the extreme corners of the stage roof supports or under the highest towers of a suspended stage. Provide advice for workers and attendees on what precautions they should take if there is a warning of imminent lightning strikes.

PRODUCTION/STAGE

9.56 Structures to consider for lightning protection are:

- stage (a tower, dome or freestanding riser type)
- front-of-house tower
- delay towers
- camera platforms
- follow spot towers or platforms

9.57 At all times, any risk of a lightning strike must be assessed and, should a storm producing lightning be directly overhead, the first step is to remove the possibility of a touch or contact shock.



MODIFICATIONS DURING USE

9.58 Occasionally structures may need to be adapted to suit specific site conditions/layout. It is quite simple to make additions to modular systems as long as representatives of the TDS contractor/supplier carry them out. If applicable, the TDS designer should approve the changes and sign them off. To help with effective communication, it is a good idea to document these changes.

NB: Minor modifications that could affect safe use of a TDS, e.g. sometimes steel ledgers are removed from scaffolding structures to enable equipment to be installed all too often these are not replaced.

MAINTENANCE AND INSPECTION DURING USE

9.59 Agree a suitable system of maintenance and inspection with the TDS contractor. Depending on the type of event and the time of year, the contractor may provide a standby service for structural matters onsite or just an emergency call out service.

9.60 If a contractor provides an organiser with a checklist to follow, it must be comprehensive. For example, it is unsatisfactory for a contractor to simply state Check the cable tension without stating exactly what to look for and what to do about it if it is incorrect.

9.61 For long-term projects, agree a regular maintenance and inspection program by a competent person. Carry out additional inspections if there is a forecast of heavy rain, high winds or snow, or if any unforeseen incident affects the structure.

9.62 A thorough check of the structure should take place following removal of any secondary fixtures (banners, lights, audio cabinets or tables, chairs and internal fit-out in the case of marquees). This is to check that no components have been inadvertently damaged or removed that could affect the safe dismantling of the structure.

TDS DOCUMENTATION SUMMARY

9.63 Depending on the type of structure, the event organiser should ensure the following key information and documents are available and passed on to all relevant parties:

design concept and specification
 construction drawings (erection and dismantling plans)
 calculations (summary)
 risk assessments and safe work method statements (erection and dismantling plans)
 site layout plans
 wind-management plans
 fire-resistance certificates
 contractor competency (association/accreditation certificates)
 crew training/competency certificates
 structural completion certificates (sign-off/handover certificates)
 emergency contingency plans for structures
 Lifting equipment and lifting-accessory certificates of thorough examination and test

CHECKLISTS

9.64 TDS checklists can help. For example, MUTA has a recommended minimum checklist for assembled marquees, in its best practice guide, MUTAs **Safe Use and Operation of Temporary Demountable Fabric Structures, Revised March 2014**.

9.65 **Temporary demountable structures: Guidance on design, procurement and use (3rd Edition) (2007) Institution of Structural Engineers**, also includes checklists for planning, construction and use of temporary demountable structures.

6.66 Video screen collapse case study.

Case study: Video screen collapse
Incident A video screen attached by winches to a support system collapsed into an events area. The video screen had been erected to show a major televised sporting event. Fortunately, there were no injuries as a result of the collapse. The incident occurred in the afternoon before the event was due to be broadcast that evening. The expected public attendance was about 2500 and 55 people were to be working backstage and in event control. Had this failure occurred during the broadcast, there could have been multiple fatalities
The investigations findings The collapse was due to an inadequate structural design. This resulted in the overloading (due to foreseeable wind forces), and inevitable failure of welds, which induced progressive failure through load redistribution within the modular supporting structure The contractor had failed to co-ordinate their design team, which had been undertaken by multiple design parties, and a final effective design had not been produced before the structure had been erected and handed over to the client The client, contractor and subcontractors had all failed to some extent in controlling the risks to the public and workforce during this event in:

planning the event
 designing the structure
 installing the structure
 operating the structure

As a result of this incident

The contractor has developed a system of formal design and operational checking by independent competent parties

The event organiser has formed a checklist system that allows the contractor to formalize and demonstrate their duties from design to dismantling the structure

Case study: Saddle-span tent collapse at a music festival

Incident

A main stage, saddle-span structure collapsed at a music festival. As a result, three people who were on the stage, were injured

The investigations findings

The collapse of the saddle-span structure was the result of stabilizing ground anchorages failing during prevailing weather conditions

The saddle-span design was robust but required installation in strict accordance with the instructions.

This design relied heavily upon effective ground anchorage systems and correct vertical alignment

The planning teams decision to locate and orientate the structure into the prevailing wind direction had been flawed and had, unnecessarily, increased risks of high wind forces on the structure

The event organiser had not ensured that there had been effective, or independent, checks undertaken of the completed structure

The contractor had not installed effective ground anchorage systems

The event organiser had not ensured that adequate prevailing soils information had been available, or interpreted, to allow an effective ground anchorage system to be developed

The event safety management plan was incomplete, without essential structural and ground engineering input relating to the saddle-span structure and an operational wind-management plan

The event organiser failed to operate an effective evacuation procedure as the weather continually deteriorated throughout the day

As a result of this incident

The organiser has now:

employed geo-technical engineers to assist with the conceptual and detailed planning of the event

commissioned structural engineers to assist with the design and operational independent checking

created systems to evaluate potential contractors more effectively

the local authority, acting as an enforcer, will develop more stringent checking systems

10. Fire Safety

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

- Fire legislation requires a risk-management process that focuses on places and buildings**
- Carry out a fire-safety risk assessment, or engage the services of a competent person to do so**
- Consult and liaise with the local fire and rescue authority at the planning stage, and thereafter as required**
- Draw up a fire-management plan**
- Identify potential ignition and fuel sources**
- Establish the control measures**
- Have an evacuation plan in place**
- Implement and enforce appropriate process and general fire precautions at all stages of the event**
- Provide adequate means for raising the alarm, and suitable and sufficient escape routes**
- Provide suitable and sufficient fire-fighting equipment**

10.1 Prevention and mitigation of the risk of fire is a critical part of event safety. This chapter provides organisers with an overview of fire safety issues and highlights guidance that is more specific.

10.2 Good management of fire safety is essential to ensure that a fire is unlikely to occur, or if it does break out, that it can be controlled quickly and safely without putting staff and the public at risk. The aim is to provide an understanding of what is required based on the level of risk of the event.

GENERAL FIRE SAFETY LEGISLATION

10.3 General fire safety in England and Wales is delivered through compliance with the Regulatory Reform (Fire Safety) Order 2005. In Scotland, the Fire (Scotland) Act 2005, as amended, and the Fire Safety (Scotland) Regulations 2006. In Northern Ireland the Fire Safety Regulations (Northern Ireland) 2012, apply. This legislation applies to all events.

10.4 The legislation implements a risk-based approach to fire safety. It requires the responsible person (usually the event organiser, licence holder or person having overall control of the event) to carry out a fire-safety risk assessment and implement appropriate fire precautionary and protection measures, and to maintain a fire-management plan.

10.5 Fire and rescue authorities are normally responsible for enforcing the legislation. At sports grounds covered by a safety certificate, the Local Authority will be responsible.

10.6 Fire-safety information is available on the relevant government websites, along with guidance on how to ensure compliance.

PROCESS FIRE PRECAUTIONS

10.7 Process fire precautions are the special fire measures required in any workplace in connection with the work process being carried out (including the storage of articles, substances and materials). Use of Liquefied Petroleum Gas (LPG) at an event is an example of a process fire risk. The precautions are intended to prevent/reduce the likelihood of a fire breaking out, or if a fire does occur, to reduce its spread and intensity. Further advice on process fire precautions can be found on the Health and Safety Executive's (HSE) website:

<http://www.hse.gov.uk/fireandexplosion/workplace.htm>

10.8 Process fire precautions are enforced by HSE or the Local Authority, under the Health and Safety at Work etc Act 1974, the Management of Health and Safety at Work Regulations 1999 (MHSWR)

<http://www.hse.gov.uk/pubns/books/l21.htm>, and more specific health and safety legislation, such as the <http://www.hse.gov.uk/fireandexplosion/dsear.htm> and <http://www.hse.gov.uk/fireandexplosion/index.htm>

FIRE SAFETY RISK ASSESSMENT

10.9 The first requirement is to undertake a fire-safety risk assessment. Consider the venue, any structures, and how to determine what risks exist and what is needed to control those risks.

10.10 The extent of the fire-safety risk assessment needed will depend on the nature and complexity of the event. In some instances, the event organiser will be able to carry out the fire risk assessment. However, as the complexity of an event increases, advice should be sought from a competent person who has sufficient expertise and experience in the type of event being planned.

10.11 Comprehensive guidance on fire-safety risk assessment can be found in HM Government [Fire safety risk assessment guides](#), [Open air events and venues](#); [Small and medium places of assembly](#) and also [Large places of assembly](#). Similar guidance documents are available on the Scottish and Northern Ireland government websites.

10.12 The fire-safety risk assessment can be carried out either as a separate exercise or as part of a single risk assessment covering other health and safety risks. Ensure that, based on the findings of the assessment, adequate and appropriate fire-safety measures are taken to minimise the risk of injury or loss of life in the event of a fire. This will include safe occupant capacities based around means of escape.



IDENTIFYING FIRE RISKS

IGNITION SOURCES

10.13 Possible sources of ignition at an event could include:

deliberate ignition due to arson/wilful fire raising

cooking and catering appliances, including barbecues (official catering and public campsites/picnic areas)
cigarettes, matches and lighters
campfires and bonfires
fixed and portable heating appliances
hot processes welding, hot cutting, angle grinding, blacksmiths
faulty or misused electrical equipment
lighting equipment and light fittings general and effect/display lighting
naked flames candles, garden flares, open flame equipment
pyrotechnics and fireworks
vehicle exhausts
lightning strike
fire used in performance, e.g. flame eater

COMBUSTIBLE MATERIALS

10.14 Materials that provide a source of fuel at an event or venue could include:

non-flame-retardant tents and marquees
non-flame-retardant stages, backdrops, drapes, scenery and screens
non-flame-retardant displays and stands
packaging materials, litter and waste materials
flammable gases (LPG cylinders)
fuel stocks for generators, etc
animal feed and bedding
dry vegetation, e.g. stubble fields
seating, cushions, soft furnishings
temporary floor and wall coverings
vehicles

FIRE PREVENTION

10.15 There are a number of important aspects of fire prevention. In addition to the following issues forming part of the fire-safety risk assessment, it is also recommended that they be referenced in the fire-safety management plan. Most involve the elimination or control of fuels and/or of sources of ignition:

use fire-retardant fabrics for tents/marquees and other temporary demountable structures, such as stages and grandstands. For further guidance, see [The Performance Textiles Association's \(MUTA\) website](#)
take into account the fire properties of building structures, wall linings and necessary fire separation from risk areas when assessing the suitability of a venue that is to be used for public assembly. Details can be obtained from Fire safety risk assessment – large places of assembly or Approved Document B of the Building Regulations
ensure there is an adequate distance between temporary structures, traders and refreshment stands etc. Use fire breaks between groups of stands to reduce the spread of fire, allow people to escape and provide access for emergency vehicles. A separation distance of 6 metres with a fire break every 24 metres is recommended, but this is determined by the risk of the fire and consequential spread
remove rubbish and waste, including fat waste, from the site regularly. Also, pick up litter and provide sufficient waste bins and collection
ensure areas underneath temporary structures, including seating, are regularly cleaned and kept free of litter and debris
control open fires, barbecues, etc
effectively control catering units and cooking facilities
ensure LPG cylinders are installed, stored, used and transported safely. Fixed LPG tanks are also subject to safety considerations. For further details, see the box on Gas safety at the end of this chapter
safely store flammable solids and liquids
ensure all electrical equipment is installed and maintained by a competent person (see The Purple Guide's chapter Electrical and Lighting)

control fireworks, other pyrotechnics and sources of ignition. Sky lanterns come with inherent dangers that cannot be controlled so their use is not recommended

ensure generators are located and used safely, including when they are being refuelled. If possible restrict the use of petrol generators

store hay, straw and animal bedding away from ignition sources, and keep separated from structures to prevent fire spread

maintain vegetation during dry conditions so it does not become a fire risk

conduct periodic site inspections

For further information, see the fire safety guidance on the [GOV.UK](https://www.gov.uk) website



PRECAUTIONS IN CASE OF FIRE

10.16 Have a plan that identifies the measures necessary to detect a fire (watchtowers, fire wardens, smoke alarms), to alert people, and to evacuate them to a safe place in the event of a fire.

10.17 Ensure there are suitable and adequate methods of giving warning in case of fire, from fixed fire alarms, fire stewards, public address systems, etc. Detailed guidance about ways of giving warning in the case of fire and other emergencies are covered in Emergency public announcements in The Purple Guide's chapter on Communication, and under Showstop procedures in The Purple Guide's chapter on Crowd Management.

MEANS OF ESCAPE

10.18 Make sure there are arrangements for everyone to be able to escape safely from every structure and from the site itself. They should be based on the findings of the fire-safety risk assessment. Seek advice from a competent person who has sufficient expertise and experience in the type of event being planned.

10.19 The means of escape in case of fire should allow people, regardless of the location of the fire, to move safely along a recognisable escape route to a safe place (such as a street or open space) without being overcome by fire, heat or smoke.

10.20 Those in control of some structures with special features, such as fairground rides or inflatables, need to make special arrangements to ensure that people can escape if a fire breaks out.

THE RISKS OF EVACUATION OF LARGE OPEN SPACES

10.21 For large crowds and in certain environments full evacuation may be inherently dangerous and disruptive, as such the options to partially evacuate, or invacuate (move within the site) need also to be assessed

NB: For detailed information on Evacuation, please see The Purple Guide's chapter on Contingency and Emergency Planning.

ESCAPE ROUTES

10.22 Bear in mind that an escape route needs to lead to a place of safety; not just out of a tent. So consider the kind of obstructions/incursions that commonly restrict the effectiveness of escape routes. They should not lead:

to closed compounds (unless there is a ready means of opening the perimeter)
past gas or other flammable stores
through the kitchen or other likely source of the incident
into campsites with no defined access route
through an area that narrows to the point where it become dangerous

NB: Detailed advice on escape routes is provided in the HM Government [Fire safety risk assessment guides Open air events and venues](#); [Small and medium places of assembly](#) and [Large places of assembly](#) and the [Guide to Safety at Sports Grounds \(The Green Guide\)](#)



EXIT WIDTHS AND NUMBERS

10.23 To calculate the number and size of exits required the following model should be used:

determine risk level (type of event, occupants, etc.)
determine escape time (how long is available to escape)
determine exit flow rate (how fast people will travel along the route)
determine occupancy (type of use and number of occupants)
determine total exit width required (to enable all people to exit in required time)
determine minimum number and size of exits required

TRAVEL DISTANCES

10.24 Once the number and location of people and the required exit capacity has been calculated, the siting of the exits should be determined. This needs to take into account the distance that people will have to travel to get to them. Where escape is available in more than one direction, the travel distance can be extended.

10.25 Table 1, below, gives suggested travel distances for temporary structures. For permanent structures, the original design criteria should be referred to.

Structure	Escape route	Suggested travel distance
Small Marquee or tent	Escape in more than one direction	18m
	Escape in only one direction	6.5m
Air-supported structures	Escape in more than one	12m

	direction	
	Escape in only one direction	Not recommended
Other temporary structure, including large marquees and Big Top type structures	Escape in more than one direction	25m up to 60m, dependant on risk
	Escape in only one direction	12m to 25m, dependant on risk

Table 1: Suggested travel distances for temporary structures

EVACUATION TIME

10.26 The maximum escape time for open-air events can vary dependant on various factors, including the size of the venue, whether full or partial evacuation is employed, etc. This is normally between five and 10 minutes. These times depend largely on the level of fire risk present, with the figure of five minutes suggested for higher-risk events, and a longer period for lower fire-risk events.

10.27 The escape times for individual structures should be based on between 2 and 3 minutes dependant on risk.

ESCAPE ROUTE CAPACITIES

10.28 The capacity of an escape route is determined by the rate at which people pass along the route during each minute of the defined escape time. The following are suggested rates of passage for open-air parts of venues:

on all routes within seated accommodation (including gangways and ramps) and stairways 66 people/metre/minute
on all routes in other parts of the event or venue (including within standing accommodation) 82 people/metre/minute.

10.29 The width and capacity of the escape routes required for the number of people present can be calculated by using the formula:

Total exit width = number of people / flow rate x escape time

(i.e. Total exit width equals number of people divided by the flow rate multiplied by the escape time)

OPEN-AIR ESCAPE TIMES

Higher risk - less than 5 minutes

Normal risk - greater than 5 minutes but less than 10 minutes

Lower risk - 10 minutes

These escape times are recommended times from discovery of a fire to the evacuation of the area and could be varied dependant on the assessed risk.

10.30 The risk to people from fire outdoors may generally be viewed as lower than that in an indoor situation, simply because people are less likely to be affected by smoke and heat, and their escape routes have less chance of being cut off.

10.31 The following example shows how to calculate exit numbers and capacities.

Example calculation

There is an audience of 5,000 ticketed people at an open air Proms in the Park type concert. The orchestra and production staff number 60 persons, there are 30 staff on the bar and catering units and 20 stewards.

The audience is expected to be a family type audience, with mixed age range and low risk due to the nature of the concert.

The area is arranged with the stage to the front of the arena, with bars, catering and toilets arranged around the rear and along the sides. The arena is enclosed by a temporary fence, with ticketing adjacent to the car parks some 200 metres from the arena. Exits can be arranged in the fence line as necessary.

Step 1 Determine risk level

Due to the nature of the event, audience profile and open air location the risk is considered to be LOW

Step 2 Determine escape time

Low risk = 10 minutes (This is the escape time for open air. The escape time from any individual structures would have to be considered separately)

Step 3 Determine exit flow rate

No fixed seating, all on the flat, and in the open air = 82 persons/metre/minute

Step 4 Determine occupancy

Ticketed event for 5,000 audience, plus 110 staff and artistes = 5,110 persons

Step 5 Determine total exit width required

Total exit width required = No. of persons / flow rate x escape time

$$= 5,110 / (82 \times 10)$$

$$= 6.23\text{m exit width}$$

Step 6 Determine minimum number and size of exits required

The minimum width of an exit is normally required to be at least 1.05m, therefore the minimum number of exits required (1.05m wide) is $6.23\text{m} / 1.05\text{m} = 5.93 = 6$ exits

However, it is normal to assume that the largest exit will be compromised by fire so an additional exit is added = $6 + 1 = 7$ exits of 1.05m width

Note: The minimum number of exits can be reduced by increasing the individual exit widths, provided that the number of exits available (after discounting the largest) is at least two, and their aggregate width is at least 6.23m

10.32 The chance of a fire starting is increased where significant sources of ignition are likely to be present e.g. hot-food concessions, petrol generators or extensive electrical equipment. Therefore, the likelihood of people being at risk from fire is greater where a high density of structures and other installations could promote the spread of fire, or highly flammable or explosive materials are present.

10.33 Even where the chance of a fire starting is initially low, any fire beginning in certain areas might cause a significant risk to people e.g. from hazards such as gas cylinders.

10.34 Where significant additional facilities such as marquees/tents, temporary structures and static or mobile concessions are likely to be found onsite, consider the risk to people from radiated heat from a fire in one of these.

10.35 Consider the time required to move people away from the vicinity of these facilities when escaping from a fire inside. Crowded or poorly designed circulation spaces around such facilities can cause a delay to those escaping.

10.36 In all the above examples, fast dispersal of people to a safe distance from the fire will be necessary. The risk level in these areas might therefore be regarded as higher. Other higher-risk examples might include certain areas of larger venues and events, such as music concerts and sporting events with large numbers of people and extensive facilities, where the site is enclosed or movement is restricted for security reasons.

10.37 In areas where there is little chance of a fire or, if a fire does start, it will be detected quickly/spread slowly (e.g. because of low density of structures/ installations and lack of additional hazards), the risk might be regarded as lower. A typical example would be a small village fete accommodating limited numbers of people, predominantly in the open air, with few sources of ignition/combustible materials, and with unrestricted egress from the site.

10.38 In practice, a venue or event is likely to comprise a number of different areas of risk, ranging from lower to higher. Each area will need to be assessed separately, and fire precautions planned accordingly. For example, where people can move away from a hazard with ease, the risk level might be regarded as lower than if movement away from the same hazard is restricted by fences, site layout, or other obstructions. In the majority of outdoor areas of typical venues or events, it is likely that the risk level can be regarded as normal.

SIGNAGE

10.39 Signs should be used to indicate all escape routes and exits. They should comply with the Health and Safety (Safety Signs and Signals) Regulations 1996 and be suitably located to ensure that they are visible by persons making their escape. Due to the distances that may be involved within a venue, the signs should be of sufficient size to ensure that they can be easily seen and understood. They should not be obscured by other signage, scenery, drapes, etc, and should be suitably lit to be seen throughout the duration of the event. Glare and other factors should not make the signs unreadable.

LIGHTING

10.40 If the event takes place wholly in the open air during hours of daylight, lighting will not normally be required. However, consideration should be given to persons who may be on site overnight, such as security personnel.

10.41 In most cases lighting will be required to illuminate exit routes, signage, etc. This should consist of primary and emergency lighting. In some instances it may be suitable to power lighting circuits from different power sources to provide resilience. (See The Purple Guides [Chapter](#) on Electrical and Lighting)

RAISING THE ALARM

10.42 Suitable arrangements should be put in place to detect and raise the alarm of fire. In fixed venues and some larger structures this will be by way of fixed fire detection and alarm systems, whereas in smaller temporary structures and open air events other means will need to be employed, such as the provision of domestic smoke alarms, stewards etc. Automatic detection should always be provided in any structure where persons sleep, apart from individual private tents.

10.43 Apart from where an automatic alarm system is in place alternative arrangements for communicating the alarm to staff and the public will need to be provided. This could include means such as stewards ushering people out, air horns, or public address systems. (See The Purple Guides [Chapter](#) on Communication)

FIGHTING FIRE

10.44 Fire extinguishers should be located at identified fire points around the event site e.g. at exits to tents, stages, and on exit routes. The extinguishers supplied should be appropriate to the nature of the potential fire. They should be checked regularly to ensure that no tampering has taken place. It is good practice to have extinguishers under the control of stewards.

10.45 Where necessary, signs should be displayed to show where extinguishers are located. Staff should be trained to use extinguishers and to understand the operating instructions printed on them. This will reduce the likelihood of using the wrong extinguisher, e.g. using a water-filled extinguisher on an electrical fire.

10.46 The level of provision of fire-fighting equipment, vehicles and personnel will vary due to local circumstances, and the requirements and risk at each event. In some cases, consider employing the services of a private fire contractor. The fire and rescue service may be able to advise on this.

10.47 Fire appliances should be able to access all parts of the site and to get within 45 metres of any part of any structure, including fuel storage facilities.

10.48 Off-road fire-fighting vehicles may be required to access some parts of a site. The layout of any camping area and fire lanes needs to take into account the reach of the hose reels on the fire-fighting vehicles available for the event. (See The Purple Guides [Chapter](#) on Campsites)

Gas safety advice

Supply and installation

The site and structures may be supplied with gas from the mains, or liquefied petroleum gas (LPG) from fixed tanks or transportable cylinders. The main risks from the use of gas are:

accidental release, which can lead to fire, explosion, or asphyxiation
build-up of fume/poisonous products, e.g. carbon monoxide

Appliances, including catering equipment and gas-powered generators, must be installed, maintained, and certified by **Gas Safe Registered** gas fitters

Every gas installation must be properly installed and regularly maintained so that:

gas is efficiently burned to prevent the production of carbon monoxide

there is good general and fixed ventilation for the appliance

combustion products are safely dispersed to the open air

flues, if fitted, are properly installed and free from leaks and obstructions

Storing LPG

Arrange your LPG storage to prevent two main risks:

leakage followed by ignition. Leaks could arise from damage to the vessel or its associated pipework
direct heat on a vessel. The most likely source is a fire close to the vessel, so it is important to keep other combustible materials well away

The **trade association for the LP Gas industry in the UK** (UKLPG) and the Nationwide Caterers Association (NCASS) have produced various useful codes of practice on LPG

HSE Guidance **Chemical Sheet 5: Small-scale use of LPG in cylinders** also gives details on storage requirements when not in use. The recommendations apply equally to empty cylinders as to full ones because they can still contain significant amounts of gas. Remember to store cylinders:

in a well-ventilated position outdoors on firm, level ground at least 1 metre from buildings or boundaries, 2 metres from any building openings, drains or gullies, and 3 metres from other combustible, corrosive or oxidising materials

in an upright position

Using LPG

When in use, site LPG cylinders outside in a well-ventilated position on firm, level ground against the wall of a building or structure, secured in the upright position. This does not apply to cabinet heaters, which are designed to be used indoors and have the cylinder inside the appliance

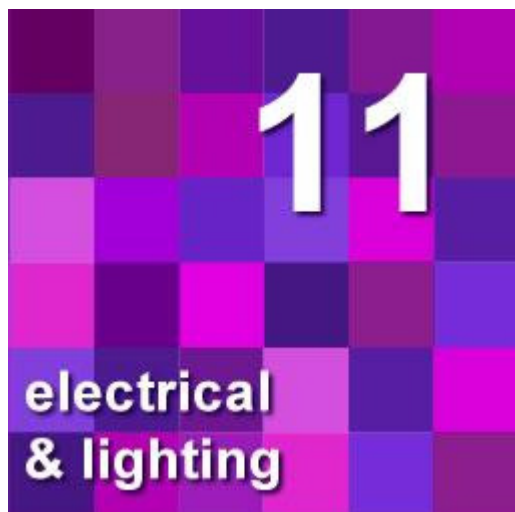
Any cylinder should be at least 2 metres from any openings to cellars or drains and the valve at least 1 metre horizontally and 0.3 metre vertically below any wall openings, e.g. opening windows

Protect the cylinders from damage and interference and make sure that there is ready access to the valves in an emergency

Always change cylinders in a well-ventilated area and make sure that there are no naked flames or other sources of ignition nearby while doing so

11. Electrical & Lighting

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

The advice given in this chapter is intended as an overview. Electrical contractors must consult the documents listed for specific guidance

The event risk assessment and the major incident plans should cover all possible hazards associated with the electrical and lighting installations

Equipment should be weatherproofed and isolated from the public

Cabling must be routed in a manner that will minimise tripping hazards and mechanical damage throughout the site

Consider the location of generators to enable refuelling and prevent excessive noise nuisance

11.1 Electrical installations are a key aspect of any event. However electricity can cause death or serious injury to people or livestock if the installation is faulty or not properly managed. This chapter gives general guidance limited to low-voltage installations (more than 50V a.c or 120V d.c. and less than 1000V a.c. rms or 1500V d.c.), as well as protective or functional extra low Voltage installations (not exceeding 50V a.c. or 120V d.c.). In many circumstances, the electrical supply may be of a temporary nature and, if so, should be designed and constructed using equipment suitable for the intended purpose.

11.2 All electrical installations and equipment must comply with the general requirements of the Electricity at Work Regulations 1989 and only competent persons should carry out electrical installation work. More specific guidance is provided by the following documents:

British Standards (BS) 7671: Requirements for electrical installations (also known as the 'IEE Wiring Regulations'). This is the most widely used UK standard for fixed electrical installations;

BS 7909: Code of practice for temporary electrical systems for entertainment and related purposes;

BS 7430: Code of practice for earthing;

BS (EN) 62305: Protection against lightning;

BS 5266 part 1: Emergency lighting. Code of practice for the emergency lighting of premises;

BS 5266 part 2: Emergency lighting. Code of practice for electrical low-mounted way-guidance systems for emergency use;

BS 5499 part 1: Graphical symbols and signs. Safety signs, including fire safety signs. Specification for geometric shapes, colours and layout;

BS 5499 part 2: Fire safety signs, notices and graphic symbols. Specification for self-luminous fire safety signs;
 Health and Safety Executive's (HSE) guidance note **GS50** Electrical safety at places of entertainment - for smaller venues;
 HSE's guidance note **HSG107** Maintaining portable and transportable electrical equipment;
 The Institution of Engineering and Technology (IET) Code of Practice for in-service inspection and testing of electrical equipment;
 IET Guide to Temporary Power Systems and Infrastructure for Entertainment. Commentary on the application of BS 7671 and BS 7909 for temporary live events;
 HSE's booklet **HSR25** Memorandum of guidance on the Electricity at Work Regulations 1989;
 HSE booklet **INDG247** Electrical safety for entertainers;
 Guide to Safety at Sports Grounds – Fifth Edition (known as The Green Guide), published by The Stationary Office.

11.3 As every event will be unique in its requirements consideration should also be given to any other guidance which may be relevant.

MANAGEMENT OF ELECTRICAL INSTALLATIONS

11.4 The following provides a general overview of some of the matters to be considered by an event organiser when planning electrical installations within the overall venue design. Electrical contractors working on site should, however, refer to the specific guidance mentioned above and not rely solely on the general overview given in this chapter. All systems should be managed in accordance with the requirements of BS 7909.

11.5 The event organiser/manager should appoint a responsible person with the necessary abilities to take the overall responsibility for the safe installation, testing, operation and deconstruction of temporary electrical installations. The responsible person(s) should have suitable and sufficient competencies to enable them to ensure the safety in all respects of any temporary electrical installation in all conditions which can reasonably be predicted to occur.



PLANNING

11.6 Specific factors need to be considered when planning the electrical installation:

Site Considerations:

- event site layout (performance areas, traders, public areas, access routes)
- the power requirements for the event
- access to and details of any mains (utility) power supply
- the location of any existing overhead power lines or buried cables
- environmental conditions (indoors or outside)
- electrical environment (e.g. between building and a generator).

Event Considerations:

- timetable of power requirements
- the use of generators

- earthing
- routing of temporary overhead or underground cables
- the main isolators controlling the electrical supplies to the stage lighting, sound, special effects, emergency lighting, and lifting equipment
- special power supplies for some equipment (e.g. non-UK equipment, hoists, portable tools, etc.)
- the electrical requirements for emergency lighting and exit signs
- power supplies for catering equipment, first-aid points, incident control room, CCTV cameras, etc
- power supplies for heating or air conditioning
- control and restriction of access to electrical installations by unauthorised persons
- use and/or integration of renewable power sources, such as solar cells or wind power, and associated equipment, such as inverters.

INSTALLATION

11.7 Where possible, locate the main electrical intakes and/or generator enclosures so they are accessible for normal operation or emergencies but segregated from public areas of the venue. Display danger-warning signs around the intake or enclosure. The signs should comply with the Health and Safety (Safety Signs and Signals) Regulations 1996.

11.8 Electrical equipment that is not suitable for exposure to weather, or other adverse conditions and is not sited in a permanent weatherproof structure should be protected by means of suitable and sufficient covers, enclosures or shelters as may be necessary to prevent danger arising. When siting the electrical equipment consideration should be given to hazards such as flash flooding or rivers and streams flooding the site during prolonged rainfall. As far as reasonably practicable, all electrical equipment should be located so that it cannot be touched by members of the public or unauthorised workers.

CABLING

11.9 All cables should be rated to meet the provisions of electrical safety and any unusual environmental and adverse weather conditions to which the cables will be exposed.

CABLE ROUTING

11.10 All cabling should be routed to minimise tripping hazards, potential mechanical damage and in a position that facilitates safe installation and removal. Particular care should be paid to position of cable connections.

11.11 Running cables along existing or temporary fence lines is preferable but care should be taken when doing so to ensure that the cables cannot be damaged by sharp protruding edges or faults in the fencing. Running cables along moveable metal fencing (Heras type or barrier) should be avoided if possible. If running along fixed temporary fencing (spiked into the ground) then appropriate sheathed cable should be used. Any cable running along a fence line should ideally be suspended to maintain ingress protection. Whenever cables are run in close proximity to metallic fencing, or over scaffolding or similar structures, consideration must be given to (earth) bonding the structure. Points to consider are the proximity of people to the structure or fence (audience or security guards, for example); whether the circuits are protected by 30mA Instant RCDs; and the likely risk of damage to the cables (if the fence is moved). It is good practice to put at least one bond onto a continuous length of fencing where high power (less sensitive protection) cables are run.

11.12 Adequate operation of RCD protection should be tested with an Earth Loop test to the structure, as for any other metallic structure. It is not advisable to run any circuits without RCD protection but if unavoidable then the structure(s) must be correctly bonded as described in BS7671 as the circuit shock protection relies entirely on the earth fault loop impedance being low enough to operate the protective device. Similar consideration must be given to metallic floor covering such as iTrackway when cables run across it.

11.13 Wherever possible vehicle traffic should be separated from cable routes. If this is can't be achieved, the cable can be routed via a cable bridge, a supporting catenary or cable ramps. If the cable is to be routed using a cable bridge or catenary, a height of not less than 5.8 metres is advisable to ensure that vehicles can pass beneath the overhead cables. Advisory notices warning of the location of the overhead cables should be clearly displayed

in both directions. Fences should be used to segregate roadways from overhead cables running parallel to the roadway to prevent inadvertent contact.

11.14 If there is a requirement to run cables underground to avoid tripping hazards, the ground conditions should be considered. Ideally, suitably sized cable ducts or pipe should be used to accommodate connectors. However cable joints should not be left underground. (Further guidance on burying cable is contained in BS 7671 and should be followed.)



ELECTRICITY UTILITY CABLES

11.15 Overhead or underground electricity supply cables belonging to an electricity supply company may cross the site, or its access roads. Precautions must be taken to avoid danger from these cables. HSE publishes two documents, developed in conjunction with the electricity supply industry, which provide guidance regarding danger from overhead lines and underground cables. These are:

Avoidance of danger from overhead electric power lines ([HSE Publication GS6](#))

Avoiding danger from underground services ([HSE Publications HSG47](#)).

ACCESS TO ELECTRICAL EQUIPMENT

11.16 Access to the following electrical equipment should be restricted to those people competent to operate the equipment, and a clear working space should be provided to allow safe access at all times:

- control switches and equipment
- amplification equipment
- special effects equipment
- follow spots
- dimmers
- high-voltage discharge lighting (e.g. neon)

11.17 The main control equipment and items specified above should be clearly identified and their locations marked on a plan to be located in the incident control room. Protect switchgear to prevent access by unauthorised people. Where switchgear is installed in a locked enclosure, specific key holders should be given responsibility for operating the equipment to comply with any request made by the emergency services.

GENERATORS

11.18 If generators are to be used and the venue is located close to a residential area or campsite, consider the noise-nuisance factor. If this is excessive, silenced generators may be a suitable means of reducing it. When earthing generators refer to BS 7430. This will provide guidance on the earthing of mobile generators for outdoor events. Where generator supplies are taken into a building or existing electrical environment, including other generator-supplied systems, attention should be paid to the deliberate or casual interconnection (e.g. via signal wires) of earthing systems to ensure safety in the event of a fault on either.

REFUELLING OF GENERATORS

11.19 When siting the generators, safety and environmental considerations should be taken into account. The use of petrol fuelled generators should be discouraged in favour of diesel, gas or renewable energy. Care should be taken to ensure that if any spill occurs, the fuel will not enter main drains, drainage ditches, streams, rivers or lakes etc. All generators and bulk storage tanks should be fully bunded and containers should be of the correct type. When operating, continuously running generators should always be regularly checked for safe operation. Those checks should include both internal and external fuel supply tanks for signs of leaks that could lead to a spillage. If the fuel supplies are likely to be restocked then suitable access should be provided for the refuelling vehicles. The generator and its fuel should not be accessible to members of the public or other unauthorised people and may need to be fenced. For those staff with a responsibility for refuelling, basic training on how to refuel safely, deal with spillages and what to do in an emergency (such as fire) must be provided. Adequate fuel spillage equipment should be available.

FIREFIGHTING PROVISIONS

11.20 A fire point containing first aid firefighting equipment should be provided close to the generator site and clearly signed. The correct type of fire extinguisher(s) should be provided and staff with responsibilities for the generator should be instructed on what to do in the event of a fire.

ELECTRICITY TO THE STAGE

11.21 All electrical equipment in the stage area should have an adequate form of localised isolation. A switching device should be installed to ensure that small sections of the installation can be controlled (e.g. for the purposes of isolating equipment) and switching device(s) should be accessible at all times to authorised persons.

11.22 In order to reduce the amount of flexible extension leads and multi-socket outlets, a suitable stage distribution system should be employed. Attention should be paid to cable routing to ensure the safe movement of people and to avoid mechanical damage from moveable stage equipment. Coiled/drum-wound flexible extension cables present a risk of overheating if left coiled or on the drum. The cable should be fully extended and any surplus wound into a figure of eight and placed in a position that does not cause an additional tripping hazard or exposure to mechanical damage.

LIGHTING (SITE, HOUSE AND EMERGENCY SYSTEMS)

11.23 All parts of an outdoor venue should be provided with suitable levels of artificial light, unless they are only to be used in adequate daylight. Careful consideration should be given to the lighting of the first-aid post, information area/marquees and pedestrian access to car parks, car park areas, toilets, and access routes to public highways.

MANAGEMENT OF LIGHTING CIRCUITS

11.24 Both normal and emergency lighting systems should be installed so that a fault or accident arising to one system cannot jeopardise the other. Suitable provision should be made to enable repairs to be undertaken if part of these lighting systems fails. Both the normal lighting circuits and emergency lighting circuits, including generators, should be protected from any interference.

11.25 In addition to the normal lighting arrangement, emergency lighting should be provided as determined by the crowd-movement risk assessment and fire-risk assessment. These assessments should cover all possible hazards associated with the venue (e.g. pits, holes, trenches, ditches, etc.). Consideration should also be given to the

provision of emergency lighting within generator enclosures, the main electrical in-take, and the main area of isolation.

11.26 Emergency lighting power supply should come from an electricity source independent of the normal lighting.

11.27 Venue/site safety lighting should be double-sourced (fed from two separate supplies either main or battery). The emergency-lighting arrangements should be in accordance with BS 5266 part 1: Emergency lighting. Code of practice for the emergency lighting of premises and BS 5266 part 2: Emergency lighting. Code of practice for electrical low-mounted way-guidance systems for emergency use.

11.28 All exit signs throughout the venue should be in accordance with BS 5499 part1: Graphical symbols and signs. Safety signs, including fire safety signs. Specification for geometric shapes, colours and layout and BS 5499 part 2: Fire safety signs, notices and graphic symbols. Specification for self-luminous fire safety signs.

11.29 Any source of electrical supply used for providing emergency lighting should be capable of maintaining the full light load (as determined by the event risk assessment and the major incident plans prepared for the event) in case of a mains failure. It is important to keep any battery used for this purpose in a fully charged condition whenever the venue is in use.



LIGHTING LEVELS FOR MEANS OF ESCAPE

11.30 All parts of the venue to which people have access should be provided with normal and emergency lighting, capable of giving sufficient light for people to leave safely, as determined by the risk assessment. Consider providing additional emergency lighting, operating in a maintained mode to the gangways passing through temporary seating structures. For stairways, gangways/corridors, exit doorways, gates, etc., the average lighting level should be 20 lux and the minimum should be 5 lux.

PERFORMANCE LIGHTING

11.31 Performance lighting will often require being suspended above the performance area or the audience. An assessment of how the suspension will be carried out should be undertaken.

11.32 If lighting equipment and other apparatus likely to reach high temperatures is located close to scenery or other combustible material, an assessment should be made as to whether guarding is required to prevent fire. Colour filters for effects lighting etc. should comply with the flammability requirements of BS 3944 part 1: Colour and diffusion filter material for theatre, television and similar entertainment purposes. Specification for flammability and dimensional stability.

11.33 Dimming equipment should be located in an approved location and should be under the continuous supervision of a competent person when the venue is open to members of the public.

11.34 Any lighting fixture or other suspended lighting equipment should have a suitable safety bond fitted. The weight of any flown lighting equipment should not exceed the safe working load of the securing points. No flown or suspended equipment, including lighting bars and amplification equipment should rely solely on one suspension cable, clamp or bolt. Each means of suspension should be secured to independent fixing points on the flown equipment and the structure.

PORTABLE ELECTRICAL APPLIANCES

11.35 Portable electrical equipment is defined as equipment which is not part of a fixed installation but is, or intended to be, connected to a fixed installation or a generator by means of a flexible cable and either a plug and socket or a spur box, or similar means. The particular legal requirements relating to the use and maintenance of electrical equipment are contained in the Electricity at Work Regulations 1989.

11.36 All portable electrical equipment brought onto a site should be in a safe and serviceable condition and evidence should be available via certification and labelling that the electrical equipment is maintained correctly, within a valid time period, and that the equipment has been subjected to routine inspection and testing.

11.37 Further information can be found in **HSG107** Maintaining portable and transportable electrical equipment and the IET Code of Practice for in-service inspection and testing of electrical equipment.

12. Barriers & Fencing

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

Choosing the correct barrier system or fencing is vital to ensure crowd safety. Understand the different types, their strengths and appropriate uses

Select a suitable supplier, who will be able to provide all the necessary drawings, plans and risk assessment

A barrier system must be built in the correct way to ensure it does not pose any risks to the general public

12.1 Barriers and fences at events serve several purposes. They can be used to:

- provide physical security, as in the case of a high-perimeter fence at an outdoor event)
- shield hazards
- aid the management of event attendees and influence their behaviour
- define routes
- remove sight lines
- prevent the audience climbing on top of temporary structures
- relieve and prevent the build-up of audience pressure

12.2 There are many different products available to hire or purchase. Choosing the right barrier or fencing product is essential and should be subject to thorough planning, risk assessment, correct configuration and installation.

12.3 Detailed technical requirements for the various types of barrier referred to in this chapter are given in the Institute of Structural Engineers publication Temporary demountable structures. Guidance on design, procurement and use (3rd edition) (<http://www.hse.gov.uk/event-safety/temporary-demountable-structures.htm>) and (<http://shop.istructe.org/temporary-demountable-structures.html>)

LEGISLATION AND GUIDANCE

12.4 The following legislation and guidance should be considered (where relevant) when planning and deploying barriers and fencing at events:

Health and Safety at Work Act etc 1974 (as amended) and associated Regulations
 (<http://www.legislation.gov.uk/ukpga/1974/37/contents>)
 Management of Health and Safety at Work Regulations 1999
 (<http://www.legislation.gov.uk/uksi/1999/3242/contents/made>)
 The Provision and Use of Work Equipment Regulations 1998 (PUWER)
 (<http://www.legislation.gov.uk/uksi/1998/2306/contents/made>)
 Regulatory Reform (Fire Safety) Order 2005 (<http://www.legislation.gov.uk/uksi/2005/1541/contents/made>)
 Fire safety risk assessment: small and medium places of assembly
 (<https://www.gov.uk/government/publications/fire-safety-risk-assessment-small-and-medium-places-of-assembly>)
 Fire safety risk assessment: large places of assembly
 (<http://www.communities.gov.uk/publications/fire/firesafetyrisk>)
 Fire safety risk assessment: open-air events and venues
 (<http://www.communities.gov.uk/documents/fire/pdf/158379.pdf>)
 Temporary demountable structures. Guidance on design, procurement and use (3rd edition)
 (<http://www.hse.gov.uk/event-safety/temporary-demountable-structures.htm>) and
 (<http://shop.istructe.org/temporary-demountable-structures.html>)
 The Guide to Safety at Sports Grounds (The Green Guide)
 (<http://safetyatsportsgrounds.org.uk/publications/green-guide>)
 Good Practice Safety Guide: for small and sporting events taking place on the highway, roads and public places
 (See **Chapter 7** Transport)
 Managing Crowds Safely HSG 154 (a guide for organisers at events and venues)
 (<http://www.hse.gov.uk/pubns/books/hsg154.htm>)
 Counter Terrorism Protective Security Advice for Major Events (<http://www.nactso.gov.uk/>)
 Eurocode 1: Actions on structures Part 1-1: General actions Densities, self-weight, imposed loads for buildings
 (2002) (<http://shop.bsigroup.com/en/Browse-By-Subject/Eurocodes/Descriptions-of-Eurocodes/Eurocode-1/>)
 HSEs web guidance on barriers, which includes guidance on the different type of front of stage barrier
 configurations (<http://www.hse.gov.uk/event-safety/crowd-management.htm#barriers>)

12.5 Remember that all legislation and guidance is periodically subject to revision and new regulations issued; ensure that the most current version is used for reference

RISK ASSESSMENT

12.6 It is important that the use of barriers and fencing at any event is thoroughly considered and risk assessed. Incorrect use of a barrier/ fencing product for a location and/or circumstances could cause injury or harm

12.7 It is quite likely that the intention to use barriers is as a result of a control measure identified within other risk assessments relating to the event. Risk assessing the use of barriers and incorporating the findings into planning is an important method of designing safety into an event.

12.8 It is critical that the use of barriers and fencing does not present greater risks than those which they are intended to control.

12.9 There are many documented scenarios where barriers and fencing have failed through incorrect use. Due consideration must be given to the impact which their deployment might have on audience behaviour and also the likely levels of pressure to be loaded upon the barrier. Load could take the form of wind, crowd pressure, vehicle or animals etc.

12.10 The event type, expected numbers of attendees, anticipated audience profile/ behaviour, venue, environment, weather and other conditions peculiar to the location will impact on the risk assessment. This in turn will determine the type of barriers to be used and how they are configured.

12.11 The risk assessment should consider the potential persons and groups of people who might be affected; typically this would be artists, event staff, audiences and members of the public.

NB: See **Chapter 2** on Planning, Management and Risk Assessment.

CROWD DYNAMICS

12.12 Barriers, in the context of crowd management at events (rather than security fencing to protect/separate sensitive areas for access control), fall into two main categories:

differentiating spaces
pressure barriers

NB: See The Purple Guides [Chapter 13](#) on Crowd Management.

DIFFERENTIATING SPACES

12.13 Tensor barriers, ropes, tape etc, are typically deployed where there is no expectation of crowd surges, such as defining queuing areas and waiting lines. These need to be used with due consideration for the size of crowd and expected access, circulation and egress profile.

12.14 Event organisers should be aware of the different needs when deploying a differential barrier line or a pressure barrier. To assess which is required, an event organiser should consider:

the number of people present at any one time
the size of the space
the nature of the crowd
the actions in that space (for example a waiting/queuing line may have surges when gates open, buses arrive, etc)
the general conditions (weather protection, duration of wait, etc)

PRESSURE BARRIERS

12.15 The use of this system should be based on the outcome of a risk assessment but should be considered when the location may experience:

large crowds (for example, front of stage)
crowd surges
sustained crowd movements (such as an entry point, passing place)
a potential risk of the crowd action moving from a designated safe zone into an area where a risk may be present

12.16 There are two key locations for pressure barriers: areas that are at risk of high density crowd volume, and areas where security is required, such as the front of stage to separate the crowd from the performer/celebrity.

12.17 In general, the choice of differential barrier line versus pressure barrier should be risk assessed and evaluated as appropriate by a competent person responsible for crowd safety at the event.

PRODUCT SELECTION, DESIGN AND BUILD

12.18 Various types of barriers/fences are available and used for both indoor and outdoor events. The proposed use of barriers/fences is an integral part of pre-event planning, which should include the production of a drawing. This should take into consideration planned use, layout, ground conditions and topography.

12.19 In this section there is a description of the different types of fence or barriers used, their potential strengths and, therefore, their appropriate usages, which should always be based on a risk-assessed approach.

12.20 The type of barrier or fence selected will depend on a number of varying factors. Rope and pin, post and rope, and retractable fabric barriers are the most basic forms of barrier used to delineate an area:

rope and pin is often used in car parks on greenfield sites to create vehicle lanes and parking areas but must never be used in areas where large animals are present, especially equine, owing to the risk of animal impalement

post and rope is commonly used in the outside areas of indoor venues, as a way of maintaining a clear space at the entrance

a retractable fabric barrier is a lightweight, fast way to create queuing systems in areas where compliance from the queue is predicted and no pressure likely to build

LOW-HEIGHT BARRIERS

12.21 There are many different steel-framed low-height barriers available that are suitable for events. This type of barrier is also known by different names for the same design but is commonly known as Pedestrian Barrier. Dimensions can vary although most are 1.1 metres high and 2.5m in length, they are freestanding, with a choice of supporting systems angle or arched feet, or flat-footed.

12.22 There is a more robust type of low-height barrier, often referred to as a police barrier. This has a hooped-foot construction and is used extensively at street events, parades and marches. It should be noted that these barriers have little structural strength to withstand crowd pressure. Their main uses are for restricting access, designating routes and queuing systems. They are normally delivered in stacks and can be deployed very quickly should the correct equipment and workforce be available and trained in manual handling.

MESH-PANEL FENCING

12.23 This type of fencing is normally constructed of tubular steel frame with a steel-wire mesh infill. Commonly it comes in panels measuring 2 metres high and 3.5 metres long. It is supported by inserting the uprights into separate solid plastic or concrete block units and joined together with an independent clip unit. Straight lines of this barrier must always be supported at intervals with diagonal bracing



MESH PANEL FENCE

12.24 Mesh-panel fencing is used extensively at event sites for creating perimeters that can be moved quickly and easily opened for access. It has no structural resistance to crowd pressure. Mesh-panel fencing is often covered with plastic sheeting and, if so, consideration should be given to wind speed and direction, as diagonal braces may be required.

12.25 When branding or using scrim, additional bracing must be considered, as the wind loading will be increased. When using branding or scrim on a roll, consideration must also be given to regular breaks in the material should the barriers/ fencing need to be broken for safety reasons.

HOARDING

12.26 Hoarding fence systems are similar to mesh-panel fencing systems. However, the mesh is replaced with a corrugated thin solid-steel infill. The panel size is usually reduced to 2 metres by 2 metres, as weight of the panel is heavier.

12.27 This system should always be installed with the appropriate bracing at right angles to the fence panels and should either be pinned directly into the ground or sufficiently weighted to give stability. Hoarding has limited resistance to lateral loads, such as wind or crowd pressure. Manufacturers instructions and guidelines regarding support systems should be directly followed when installing this type of fencing.

STEEL-PANEL FENCING

12.28 This is a solid-panel system usually used for creating an enclosed perimeter. It offers a reasonably high degree of security. The nature of this product dictates that specialist contractors should erect it. The fence-panel size is normally 3 metres high by 2.4 metres wide and is formed of flat plastic-coated steel over a fabricated steel frame. The overlapping frames are bolted together, secured to the ground with pins and then supported by braces at a right angle. The braces should be positioned at every join of the panels to ensure stability. This system is designed to be load and wind bearing, however calculations should be supplied by the manufacturer/installer before a contract is signed.

ROADWAY-PANEL SYSTEM

12.29 This system is constructed from temporary roadway panels turned onto their side at right angles to the ground. It is a very efficient way of constructing a solid, secure perimeter. The nature of this product dictates that specialist contractors should erect it. A roadway panel is of a similar size to one in a steel panel system. Due to its weight, a panel must be supported by strong braces and pinned to the ground. This system is designed to be load and wind bearing, however these calculations should be supplied by the manufacturer/installer before a contract is signed.

STAGE BARRIER

12.30 This type of barrier is designed around a basic A-frame; it is load bearing and therefore normally used where there is a risk of crowd pressure.



12.31 Most stage barriers consist of the following design features:

- constructed of steel or aluminium, ideally fully welded.
- individual sections are usually 1200 mm high and 1 metre wide
- have load bearing capability

with a footplate that the audience stands on to stabilise the system
the top horizontal rail should be smooth and fall flush on the front vertical fascia (audience side)
a step on the rear (stage side) that working personnel can use

12.32 The stage barrier should be inspected and signed-off by a competent person to ensure that it is both safe and secure prior to use.

12.33 It is common for cables to be run to a control position within the audience, and a proper arrangement must be made where these cross the stage barrier. When ground conditions permit, they can be dug in. Be sure that any trench does not undermine barrier stability.

12.34 If a cable gate section is used (where cables can pass under the barrier because the gate has no footplate), the gate must be securely attached on either side. It is normal for cables to run from the centre point of the stage, and this is where peak crowd density is likely to occur. Therefore gate strength is of critical importance.

12.35 Along with the overall strength and stability of the barrier, the organiser needs to consider its shape. Given that barriers are designed to retain and resist audience pressure, it is critical to ensure that barrier location and shape does not lead to the creation of pockets in which people can become trapped, or from which kinetic energy cannot safely be dissipated. A typical example would be preference for a convex and not a concave front face to a stage barrier allowing crowd energy and movement to be transferred outwards to release pressure rather than it being concentrated in one location.

12.36 Where front stage barriers end, they will normally join to another type of fence or barrier, continuing the secure area backstage. Junctions need to be properly secured and be free of sharp or projecting edges. Consideration should be given to blanked-out or solid fence sections where sightlines to the stage are still good. This helps prevent a build-up of audience members where the pressure barrier ends and the less robust fencing type begins.

12.37 Consider the design and location of access gates, which may be required to enable workers to move from stage to auditorium, or used to relieve pressure in high-risk locations. Seek advice from a properly experienced and competent person.

12.38 Where a stage barrier is as a front-of-stage primary and secondary system, an event organiser may also consider sight-line restrictions to be built with the barrier system to assist with crowd management.

12.39 Although known as a stage barrier, this system can be used as an essential part of certain events in a range of locations where crowd density is anticipated e.g. licensed bars at outdoor events, red carpet area at film premiers, etc.

12.40 Bear in mind that due to the construction and use, this type of barrier is difficult to reposition and may restrict the options for staff to move around a certain location.

12.41 Because of the variety of uses, the stage barrier has become an important piece of equipment for event organisers. Due to the nature of this product, a specialist contractor should erect it.

12.42 When considering the use and location of a stage barrier, the following should be taken into account:

whether it is an indoor or outdoor event
the performers
audience profile
site information
ground conditions
past history
topology of the ground
weather

SUPPLIER SELECTION

12.43 There are a number of points to consider when selecting a supplier, including:

credentials

references

are they installing or just delivering? If they are not installing, who is and are they knowledgeable?

can they attend a site meeting and provide drawings?

do they have the ability to provide system calculations?

12.44 A competent supplier will provide system calculations, drawings, risk and method statements, and adequate insurance. They should be knowledgeable of public events and be able to offer advice and site visits. The supplier should also be able to supply a range of appropriate options to build the required configuration safely.

TACTICAL APPLICATION (LAYOUTS)

12.45 Whenever crowds of people gather for the purpose of entering an area, it is vital that they are processed in an organised and orderly way. If ticketing operations are going to take place, they should be coordinated with the queuing. Queues may form when people arrive at an event, or at a specific entertainment/attraction within the main venue, e.g. a music venue within the main perimeter of a multi-venued event. It is important that the tactical application of barriers and fencing forms part of the planning process of any event where people have to queue, need to be kept out of certain areas, or their routes managed.

12.46 The use of pedestrian barrier systems in an immediate contingency situation is also important, as crowd dynamics can change quickly. Once the main plan for barriers and fencing is agreed, a supply of spare crowd barrier and fencing should be arranged to cover repairs, maintenance and contingency purposes.



MULTI-CHANNEL QUEUING SYSTEM

12.47 This is probably the most effective way to queue large numbers of people on the entrance to an event or attraction, and has the advantage that:

it maximises the amount of people that can be safely queued in a given area, ensures the entry is controlled, and that people enter in the order that they have been queuing therefore eliminating pushing to gain a quicker entry
it minimises any forward pressure by the fact that the people are moving sideways in the queue and each row of people is broken up by a row of barriers.

MULTI INGRESS/EXIT SYSTEMS

12.48 At many events there may be complex pedestrian movements to manage, especially on entry/exit, including:

first-time entry
 re-entry
 exit
 workers/staff entry
 VIP entry
 artists entry
 entry and exit for wheelchair users

12.49 Various types of channels may be required within a limited amount of space while still allowing for all the usual ticketing, wrist banding and searching operations to take place effectively. This may be achieved by the use of low-height barrier in conjunction with mesh fencing installed at appropriate locations.

12.50 At large entry gates, different methods of management may be required and appropriate fencing deployed, e.g. multi-channel system to manage crowd flow, steel shield to isolate the gate area, low-height barrier to indicate different types of entry and exit.

12.51 Thought should also be given to pressure-relief openings, adequate lighting, underfoot conditions and correct signage when constructing the entry/exit systems.

WAPPING BOXES

12.52 Four low-height barriers linked together to form a box or series of boxes is known as Wapping Boxes. This results in a very robust system that provides space and distance where there is a need to separate groups of people e.g. those who have, and have not, been searched. Additional strength can be added with the use of ballast or a diagonal bracing barrier. It can be particularly effective, but must be used carefully and in combination with pressure-relief systems.

WAPPING BOX BARRIER SYSTEM

PERIMETER FENCING

12.53 Depending on the type of event, thought should be given to the level of perimeter integrity required. This can vary from low-level barrier, mesh fencing, steel shield or super-fortress fencing, as required. There may be a need for a combination of fencing types e.g. a higher, more solidly constructed product in the more vulnerable areas coupled with lower, more lightweight fencing in the safer areas.

12.54 Consideration should be given to how security patrols will move around the fence, and a sterile moat area may be required. (See Product selection, design and build, 12.18)

Construction and use

12.55 To be fully effective, a barrier system or fencing has to be built following the correct procedure. It will only be as strong as its weakest link. The general points to check are that:

ALL joining mechanisms between barriers are properly engaged, whether these are bolts or locating tenon pins.
 Any joining bolts should be of suitable quality (high-tensile steel) and not simply any bolt that fits
 barrier sections with bent, corroded or missing connections should be rejected
 the barrier is stable; if used on uneven ground, it may require packing or infilling below the footplate to ensure it is properly seated
 voids beneath the audience footplate on a stage barrier should be avoided there is a possibility of audience members getting toes or feet trapped
 the barrier should not flex, and the junctions between sections should not open and close as the barrier is loaded
 this could lead to pinching or even amputation of fingers, etc
 joints between sections should be flush or, if this is not possible, should be taped to prevent fingers being trapped

13. Crowd Management

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

The safety and enjoyment of people attending an event will depend largely on the effective management of the crowd

Crowd management is a critical part of an overall operational plan, the extent of which should reflect the complexity, risk and popularity of the event

It is not crowd control but a complete system that includes the relevant legislation and guidance, planning, management structure, performer or participant and audience profile, risk assessment, the competency of those responsible for managing the crowd, and the role of other agencies

Further information on crowd management can be found in the Health and Safety Executives Managing Crowds Safely

In addition to the aspects covered in this chapter, other factors in the design and planning of the event, discussed elsewhere in The Purple Guide, will have a bearing on crowd management, such as: transport hubs; location and design of the venue to allow good entry and exit and crowd movement; audience capacity; provision of adequate facilities; clear, effective means of communication with the audience; facilitation of an emergency evacuation, etc

CROWD MANAGEMENT PLANNING

13.1 The preparation of a crowd management plan is an essential part of the event management plan. It should be prepared by a competent person appointed to direct or manage security and/or crowd management and/or safety. The appointed person should have relevant knowledge and experience to identify crowd specific hazards, and propose the use of suitable measures to reduce risk. While every plan is unique to a specific event, to be effective the crowd management plan must detail some basic requirements, such as:

- the findings of the site inspection;
- the recommended numbers and types of stewards;
- methods of working, including communications;
- chains of command;
- audience profile;
- Crowd Risk Assessment
- methods of ingress and egress;

contingency planning;
emergency procedures;

13.2 The crowd management plan will be concerned with prevention through identifying, eliminating and controlling hazards and risks related to the tasks undertaken by stewards. The overall event management plan, which details transport plans, infrastructure and amenities, should focus on hazards and risks that might impact on those attending the event be they staff, contractors, or performers. In each case, the appropriate risk assessment should be included.

13.3 Crowd management should be considered as an essential element at the start of an event planning process. Its inclusion ensures that the correct design, information and management system is developed in tandem with other aspects of the event plan. It should follow a progressive path of:

arrival
ingress
event
egress
contingency
emergency procedures

13.4 Organisers of smaller events should refer to the HSEs crowd management web page at <http://www.hse.gov.uk/event-safety/crowd-management.htm>

LEGISLATION AND GUIDANCE

13.5 Crowd management planning and operational delivery is regulated and informed by a variety of legislation and guidance documents. The following should be referred to and should be considered for inclusion in the crowd management plan. (See also The Purple Guides chapter on Planning, Management and Risk Assessments.)

Health and Safety at Work etc. Act 1974 (as amended) and associated Regulations

(<http://www.legislation.gov.uk/ukpga/1974/37/contents>)

Management of Health and Safety at Work Regulations 1999

(<http://www.legislation.gov.uk/uksi/1999/3242/contents/made>)

The Safety at Sports Grounds Act 1975 (as amended) (<http://www.legislation.gov.uk/ukpga/1975/52>)

Private Security Industry Act 2001 (as amended) (<http://www.legislation.gov.uk/ukpga/2001/12/contents>)

The Licensing Act 2003 (where specific to the legal systems in England, Wales, Scotland (2005), Northern Ireland)

(<http://www.legislation.gov.uk/ukpga/2003/17/contents>)

The Guide to Safety at Sports Grounds (The Green Guide) (<http://safetyatsportsgrounds.org.uk/publications/green-guide>)

Managing Crowds Safely HSG 154 (a guide for organisers at events and venues)

(<http://www.hse.gov.uk/pubns/books/hsg154.htm>)

Managing Crowds Safely IND (G) 142L (<http://www.hse.gov.uk/pubns/indg142.htm>)

Counter Terrorism Protective Security Advice for Major Events (NaCTSO) (<http://www.nactso.gov.uk/crowded-places>)

Corporate Manslaughter and Corporate Homicide Act 2007

(<http://www.legislation.gov.uk/ukpga/2007/19/contents>)

Occupiers Liability Act 1984 (<http://www.legislation.gov.uk/ukpga/1984/3/contents>)

Common Law (duty of care)

BS 8406 Event Stewarding & Crowd Safety Services COP (<http://shop.bsigroup.com/ProductDetail/?pid=000000000030194297>)

Regulatory Reform (Fire Safety) Order (<http://www.legislation.gov.uk/uksi/2005/1541/contents/made>)

HSEs crowd management web page at <http://www.hse.gov.uk/event-safety/crowd-management/htm>

NB: Other legislation and guidance may be applicable and all legislation is subject to amendment. Event organisers should check for updates.

RISK ASSESSMENT

13.6 See The Purple Guides [Chapter 2](#) on Planning, Management and Risk Assessments.

STATEMENT OF INTENT

13.7 A crowd management plan should contain a Statement of Intent that summarizes the different roles and responsibilities of those with the authority to implement the plan. The aim of the statement is to ensure that each decision-making organisation, (e.g. event organisers, crowd management company, police, etc) is clear about where its responsibility begins and ends.

13.8 Any statement should be a concise document that each party formally signs to indicate their understanding and acceptance of their area of responsibility. It should not differ from but reflect any contractual obligations. The content may refer to guidance and legislation within which boundaries the crowd management services will operate. It may also provide a generic definition of security and safety related functions.

EVENT TYPE, VENUE CATEGORY AND LOCATION

13.9 Events, venues and their locations can be made up of a number of defining characteristics, which can individually or collectively influence crowd management. A site survey should be carried out during the planning stage.

ESTABLISHED STRUCTURES

13.10 This refers to venues of a permanent nature operating regularly as an event space. It will include theatres, music halls, arenas, stadia and space where the design of the venue has incorporated entrances, exits, and concourses, seating and standing areas for viewing. Venues of this type are often multipurpose and therefore crowd management plans may be well developed, but the changing nature of each event will often require a planning review. Some single-purpose venues may form part of a wider complex of buildings and structures and present their own crowd-management challenges.

GREENFIELD

13.11 A greenfield site is open space that should be selected for its suitability to the type of event being organised. This will include music festivals, agricultural events, sports occasions, community events, protest marches, etc. Greenfield sites usually require a great deal of temporary infrastructure and, in crowd management terms, may present a variety of challenges, including access routes, positioning and number of entrances, underfoot conditions and inclement weather.

13.12 See The Purple Guides [Chapter 3](#) on Venue and Site Design.

PUBLIC SPACES

13.13 Spaces in and around villages, towns and cities are often used as event space. Types of events may include athletics, public protests, cultural and traditional events, parades, street arts events, and televised broadcasts of major events. Such events are often operated on a free-entry basis and therefore particular attention should be paid to access routes, queuing systems, entrances, capacity and egress routes, including how crowd management at the event interfaces with the provision of public and private transport. (See The Purple Guides chapter on Venue and Site Design.)

13.14 Operating events in built-up space has to take into account arrangements for business and residents, including emergency services, public utilities, social-work services and legal rights of access to public thoroughfares. The latter is often regulated by a Temporary Traffic Regulation Order. (Refer to the Road Traffic Regulation Act 1984, as amended.)

TEMPORARY STRUCTURES

13.15 Temporary structures may include staging, delay towers, marquees and large circus-style tents. Some tented structures are built as a single venue and often within a larger event. Examples of the issues that should be taken into account when venues of this type are considered for use are:

fire safety;
means of escape;
occupant capacities;

13.16 See The Purple Guides [Chapter 9](#) on Temporary Structures.

13.17 Where temporary structures are installed as part of a larger event, crowd migration must also be taken into account when managing ingress, egress and capacity. The location of temporary structures and welfare facilities, such as toilets should be agreed as part of crowd management planning.

TEMPORARY INFRASTRUCTURE

13.18 The safe management of crowds depends on a number of factors, but both normal and emergency access, egress and viewing space are a priority when taking into consideration the installation of temporary infrastructure, such as power supplies. Consider how this may affect the movement and sight lines of those attending the event.

PERFORMER AND PARTICIPANT PROFILE

13.19 Performers (e.g. music and the arts) and participants (e.g. individual and team sports) can have both a positive and negative influence on crowd movement and behavior, and therefore affect the ability of event organisers to manage crowds as planned. Events that have multiple or competing attractions may have variations in crowd movement depending on the popularity of a performer. In extreme cases, such as in response to an emergency where an event has to be temporarily suspended, the positive influence of a performer can be very effective in keeping order and communicating safety messages. The opposite can also be true where the actions of a performer or participant can have a negative influence, thereby disrupting the event and creating disorder. Factors that should be considered include previous activity and behaviour, as well as the cultural and political views of those performing or participating. Therefore an understanding of the profile is essential.

13.20 Whether or not a risk assessment or profiling of an event discloses the possibility of crowd-related issues, it should be a part of contingency planning to draw up public-announcement protocols and outline passages of text in advance to assist event organisers and performers.

AUDIENCE PROFILE

13.21 Events are very often linked to cultural aspects of society and this tends to be reflected in the profile of audiences, which encompasses a number of factors. While most attendees visit an event for entertainment and enjoyment, some minority influences can undermine the experience of the majority and this includes protest groups who may need to be accommodated in a specific location.

13.22 Thorough research into the audience profile is important to establish the correct methods for communicating with the public as an aspect of ensuring that the crowd management operation is designed around the audience.

GENDER AND AGE

13.23 The ratio of males to females and their age needs to be taken into account during planning, as it will govern the deployment of crowd-management staff. For example, performers who attract a young/teenage female audience will require a crowd management plan that allows for the possibility of large numbers of fans arriving at the venue early, methods to manage hysteria, extra support to medical teams and staff cleared with enhanced disclosure.

BEHAVIOR AND ACTIVITY

13.24 Certain audiences and groups of spectators will engage in or be associated with recognised patterns of behavior, such as aggression, anti social, anti-establishment or recklessness. Such behavior can be exhibited

through individual or group activity, such as confrontation, crowd surfing, moshing and may be affected by the consumption of drugs and alcohol.

13.25 In particular the response of audiences to actions, which may be perceived as curtailing their activity, must be taken into consideration when planning and managing in both normal and emergency situations.

VIP AND GUESTS

13.26 The crowd management plan should include methods for accommodating VIPs and guests, and may require ingress, egress and viewing areas that are separate from the remainder of the audience. Often the attendance of VIPs and guests is arranged at a late stage, therefore the plan should include a contingency to account for the effect that this can have on audience behavior.

OCCUPANT CAPACITY

13.27 At every event, whether it is free or paid, outdoor or indoor, there will be a requirement to establish a safe capacity. This will include the number of staff employed, contractors, guests, performers, volunteers and those that have a statutory duty to be on site. An important element to ensuring that an event, or separate venues within an event, remain within safe capacity limits is to establish the number of people the venue can safely accommodate and to employ a method for providing a continuous count of those at the event.

13.28 Where a venue is not clearly defined, such as a street festival, the event should be broken down into constituent parts. Occupant capacities can be calculated for the available space for each area based on sight lines, topography, audience profiles and needs (e.g. transport hubs). The Purple Guides chapter on Venue and Site Design will provide more detail on how calculations to establish a safe capacity are achieved. However, some basic crowd management principals should apply:

- ingress (access routes, queuing space and entrances);
- egress (exit routes and exit-gate widths);
- circulation space (concourses, areas around facilities, e.g. bars, catering, toilets);
- viewing space (seated or standing);
- occupancy levels within key locations (bars, tented structures, shelters, etc);

These should also be factors to consider during the planning process and when conducting a site or venue survey

13.29 The number and type of crowd management staff deployed will be determined by the work done on calculating the occupant capacity and reflected in the crowd management risk assessment.

CROWD DYNAMICS

13.30 The event organiser should provide a safe environment by putting adequate safety considerations in place. An understanding of crowd dynamics is useful for linking planning with the operational elements. There are three main phases of crowd behavior:

- ingress (e.g. access routes, queuing space and entrances);
- circulation (e.g. concourses, space around facilities);
- egress (e.g. exit routes and exit-gate widths).

And three main influences on crowd behavior:

- design;
- information;
- management.

13.31 Understanding flow rates, fill times and time to reach critical density (normally calculated by the number of people per m²) all help define safer crowded spaces. These can be defined in an event matrix that is unique to the location crowds and acts as a template for the event organiser to compare different events in the same space or different types of crowds at the same type of event.

13.32 Demonstration that consideration for emergency situations during ingress, during circulation and during egress feature in the event plan is essential for crowd safety.



MANAGEMENT STRUCTURE

13.33 Clear lines of communication and an understanding of roles and responsibilities are vital. A documented management structure assists in identifying not only the chain of command (reporting lines) that applies to the crowd management operation but how this links to the overall management structure of an event.

13.34 The Bronze (Operational), Silver (Tactical) and Gold (Strategic) command structure is tried and tested by the emergency services and should be taken into consideration for consistency when planning command structures for crowd management at events where there are shared responsibilities.

13.35 To work effectively, there needs to be real-time information exchange to ensure everyone has access to the same information on which to base decisions. This can either be done through the event control room or, for larger events, the Event Liaison Team (ELT) or Joint Agency Control (JAC).

13.36 Drawing up an Organisational Chart (Command and Control) will assist in demonstrating how the reporting lines will work between people in the same area of responsibility and also those from other agencies.

COMMUNICATION SYSTEMS AND METHODS

13.37 Communication in relation to the crowd management operation can take many forms and is vital for the exchange of information between individual members of staff and between staff and the audience. Therefore, it is important to consider all communication methods in one strategy.

TWO-WAY RADIO SYSTEMS

13.38 Two-way radio systems are commonly used for crowd management communication at events. Where the scale of the event demands, these systems are often controlled from a central point with radio operators from other agencies (event organisers, emergency services, Local Authority, etc. (See Multi-agency liaison and event control, 13.101.) It is essential that crowd management personnel be briefed in the correct use of two-way radio systems, especially the use of ancilliary equipment to cancel ambient sound in noisy environments, such as front-of-stage areas or near sound systems. Briefings should refer to the noise-at-work regulations and hearing protection when using radios in areas with high background noise levels.

OTHER SYSTEMS AND METHODS

13.39 Other forms of communication that may be considered are:

face-to-face between audience and staff;

staff briefing and handouts (to provide stewards with certain information with which they may need to inform the audience);
information signs that direct people (entrances and exits) or display conditions of entry (e.g. this could relate to items prohibited from the event);
loudhailer (to enable stewards to locally broadcast information);
public broadcast (Tannoy) system, which may be separate to the main system in use by the event;
electronic displays;
websites, text messaging and social networking.

NB: For further guidance on communication, this section should be read in conjunction with The Purple Guides chapter on Communication.

CROWD MONITORING METHODS

13.40 To inform the crowd management operation, a number of different methods may be used to monitor the crowd at various times and locations at an event. Where event control has been established, monitoring information should be relayed and recorded continuously. Electronic turnstiles and ticket scanning are two methods used to monitor a crowd flow and capacity. However, manual 'click' counts (using hand-held mechanical counters) properly operated can also be an effective method in gauging numbers of people moving in, out or through a particular space. Other areas that may be critical include pedestrian routes, entrances, audience viewing areas (particularly a standing audience in densely populated conditions) and exit routes.

13.41 It is important when calculating flow rates that the event organiser considers the overall requirement for managing crowd ingress and egress, and to avoid assessing individual locations in isolation. Flow rates will be dependent on a number of factors and, where possible, historical data should be used to establish the most efficient system to maximize a safe flow rate and reduce congestion.

For example: data obtained from the ticket-scanning system used at an event in previous years demonstrated that members of the public who had undergone a process of ticket scan, manual random bag search and then wrist banding produced, at its peak, a flow rate of 5.67 person per minute per 1 meter lane.

13.42 CCTV may be installed to provide a view of specific locations both externally and internally to a venue. CCTV systems used to observe public space must be operated by a trained person in possession of a valid security licence.

13.43 At the front of stage, it may be appropriate to employ stewards as trained 'Spotters' in elevated positions with a view across the crowd and who can assess the dynamic movement of the audience. Spotters should operate to a pre-agreed protocol for communicating crowd problems to an event control room, event organiser or stage manager. This is particularly important where there is a risk that an event may need to be stopped during a live performance.

13.44 Stewards may also be employed in other key locations externally or internally to monitor crowd flow, activity or behavior. In certain situations it may be appropriate to erect viewing platforms or other suitable elevated positions.

13.45 In the absence of an event control room, it may be necessary to establish a line of communication to share information gathered from monitoring with other agencies, such as the police, emergency services and local authority. Where there are shared responsibilities for crowd monitoring, there needs to be clear information exchange to highlight potential risks and manage them accordingly. This would normally be done through the event control room or event liaison team.

NB: This section should be read in conjunction with Management structure, 13.33; and The Purple Guides chapter on Communication.



INGRESS, CIRCULATION AND EGRESS

13.46 Crowd management planning and operations must take into account the safety issues that relate to how people will access an event, move around and then exit. This process starts with how a person gains entry, by what method, how this impacts on movement inside a venue and how a crowd departs.

ADMISSION POLICIES TICKETS

TICKET DESIGN

13.47 Ticket design can have a direct effect on the rate of admission. Clear, easy-to-read information will speed the ability of the appropriately briefed entry-point steward to process the ticket. Similarly, if anti-counterfeiting features are incorporated (which is recommended), ensure that there are simple procedures in place for the steward to check each tickets validity.

13.48 If automated turnstiles, bar code or radio-frequency scanning systems are being used to monitor rates of admission and/or accumulative capacity, then the system being used should have an appropriate back up and contingency in the event of technical failure.

13.49 If a paper ticket is being issued, it is important to consider the type of material used to produce the ticket, as bar code scanning may be difficult if the ticket is wet, crumpled or torn.

TICKETING ARRANGEMENTS

13.50 Ticketing policies can have a direct affect on the safe management of the audience. Consider the following:

where a capacity or near-capacity attendance is expected for an event, admission should be by advance ticket only;

tickets for seats that offer restricted views, or are uncovered, are marked accordingly and the buyer forewarned;

tickets for seats with severely restricted views are not sold;

part of the ticket retained by the audience member after passing through a ticket control point should clearly identify the location of the accommodation for which it has been issued;

a simplified, understandable venue plan is shown on the reverse side;

if there is more than one entrance, introduce color-coded and worded tickets corresponding to different entrances and ensure audience members are proportionally divided between them;

all sections of the venue, aisles, rows, individual seats and standing areas, are clearly marked or numbered, as per the ticketing information;

secure printing of tickets or a ticket-scanning system to minimize the likelihood of fraudulent tickets being introduced;

stewards should be familiar with the venue to enable them to accurately direct members of the public.

TICKETING AND PAYMENT

13.51 The method of payment can have a direct affect on the rates of admission, the management of entrances and audience accommodation in general:

Cash or credit card sales: To ensure a steady flow of audience into the venue when entry is by cash, set the admission price at a round figure. This avoids the need for handling large amounts of small change. Cash handling may present certain risks and should be appropriately assessed. An event organiser may consider using separate outlets for cash and credit card payments.

Ticket-only sales: The advantage of confining entry to ticket-only is that the rate of admission should be higher than for cash sale. If tickets are sold at the event, wherever possible, provide separate sales outlets. Ensure that these outlets are clearly signposted and positioned so that queues do not conflict with queues for other entry points.

Reserved (or numbered) seat ticket sales: Selling tickets for specific numbered seats has the advantage that the seats are more likely to be sold in blocks and the system allows different categories of audience member (e.g. parent and child) to purchase adjacent seats and enter the venue together. This policy helps to avoid random gaps and ensures that in the key period preceding the start of the event there will be less need for stewards to direct latecomers to the remaining seats, or move members of the audience who have already settled.

Unreserved seat sales: Selling unreserved seats is easier to administer. However, people are prone to occupy seats in a random pattern and it can be hard to fill unoccupied seats in the important period before the start of the event. For this reason, when seats are sold unreserved, a reduction in the number of seats made available for sale may be necessary and a systematic process of filling seats in rows and blocks should be considered.

Free event: Where an event has been organised so that it is free to enter, it is important that a safe capacity is calculated and that a method for counting those entering the event is established to ensure that it does not exceed the capacity. (See Crowd monitoring methods, 13.40.) Although an event may be classified as free to enter, it should be given the same level of crowd management planning and risk assessment that a paid event of similar scale would require to ensure that there are safe systems of queuing, adequate access and egress is available, and that capacity is regulated. Events taking place on streets or on public open spaces, which have free access/egress, still require crowd management principles to be used to ensure that crowd movement is safe. This may involve the zoning of areas to manage crowd flows. Planning should also take into account the proximity of transport hubs and the location of attractions and other facilities to minimize possible pinch points. (See The Purple Guides [Chapter 3](#) on Venue and Site Design.)

No ticket sales on site: If all tickets have sold out in advance, or if tickets are not sold on site, every effort should be made to publicize this fact. In addition, use local or national media and place signs along approach routes advising people of the situation to avoid an unnecessary build-up of crowds outside. In certain instances, ticket cordons may be necessary to ensure that non-ticket holders are prevented from joining queues.

TICKET COLLECTION AND WRISTBAND EXCHANGE

13.52 Ticket collection points should be clearly signposted and may be located away from the main entrance to prevent disruption between queuing ticket holders and non-ticket holders. The queuing plan for a wristband exchange will depend on whether or not it is external or internal to the event. In each case, signposting and queuing arrangements need to be considered in the planning stages. Event organisers should consider a method for attaching wristbands (e.g. loose or ill fitting) as any flaws in the process, may allow wristbands to be reused by unauthorized persons, which could lead to overcrowding.

GUEST TICKETS, VIP ACCESS AND ACCREDITATION

13.53 Access and egress points for accreditation holders can be a focus for crowds. There may be a need for appropriate measures to manage crowd safety and to allow for ease of entry and exit to those in possession of accreditation. Separate access points may be needed for guests and VIPs, artists and their entourage and officials. Consider the location of the gates between these areas and any audience entrances, to prevent any crowd build-up at such points. Clear identification of people permitted into such areas will assist stewards in controlling admission and in minimizing delays in admission, which reduces queuing. Such identification may be by means of special passes or wristbands. Various forms of accreditation (laminated and stick-on passes, wristbands, swipe cards, lanyards, etc) are often used at an event to control access to working, hospitality and VIP areas.

13.54 An event organiser should consider the legal implications that arise as a result of where accreditation will be checked, as there may be a necessity to deploy licensed security staff as opposed to unlicensed stewards.

NB: Please also view Security, 13.106.

ADMISSION POLICIES OTHER

WHEELCHAIR USERS

13.55 It may be appropriate to allocate a specific entrance for customers who use a wheelchair if this assists the customer and their carer gaining access to the location nearest to that allocated by their ticket. Consider the suitability of access routes prior to and once inside the venue when deciding the location of any entrance for people who use a wheelchair.

ADMISSION OF YOUNG CHILDREN

13.56 It may not be appropriate to allow young children, particularly those under the age of five years, to attend certain events because of the scale or density of the crowd. If they are not allowed, clearly advertise this fact in advance. Where young children are allowed, the planning should incorporate arrangements for pushchairs, and at large events dedicated childrens areas may be useful. It may be necessary to employ staff that have been given clearance through Enhanced Disclosure.

RE-ENTRY POLICY

13.57 It may be appropriate for an event to operate a re-entry policy to enable members of the audience to leave the event for a short time and return. When considering the provision of this type of system, an event organiser may need to factor in the impact this will have on crowd flow at entrances. Installing separate exit lanes may be required where there is a possibility of conflicting crowd flow from people moving in the opposite direction. Re-entry may also create variations in cross flow on concourses and disruption to lines of sight during an event.

PHASED ARRIVALS AND DEPARTURES

13.58 Certain events are designed to allow for audiences to come and go throughout the course of a day. This type of crowd movement may generate unexpected situations, such as variations in overall capacity, crowd density, and disruption to traffic management and public transport.

13.59 It may be appropriate for entrances to be opened some considerable time before the event is due to start and the audience made aware of this by tickets, posters or other means. Admission may be staggered by providing early supporting acts or other activities. If significant queuing is likely to occur before that time, consider opening gates before the published time, providing that on-site services are ready. It is important to appreciate that when entrances are opened early, the audience demands on facilities, such as waste clearing, sanitary accommodation and catering, will be increased.

13.60 The pre-event planning process should consider audience profile, historical data about the event and incorporate contingencies for minimising the occurrence of crowd problems related to different phases of arrival and departure. Event organisers may need to work with the Local Authority, transport providers and emergency services to ensure a strategy is agreed and implemented ensuring the relevant service providers can manage the crowd numbers travelling to and from the event.

QUEUING SYSTEMS

13.61 The profile of the event (i.e. venue access points), audience profile and capacity, will determine what type of queuing system is required. Approach routes and queuing space should be a primary consideration during the site survey and event planning stage to ensure that crowds can access and progress through the queuing system efficiently. Therefore all other activities, including mobile concessions, should be kept well clear of entry points.

13.62 The queuing space should be designed to accommodate in comfort and safety an acceptable percentage of the total event capacity and to coordinate this with the opening and event start times to prevent a build-up of crowd

pressure. Where possible, there should be an appropriate amount of distance between the front of the queue and an entrance to allow it to be opened and managed safely.

13.63 It is important to consider that there are often different time scales required to accommodate a crowd as it enters an event (a steady flow over a longer time) and when it leaves (a condensed flow over a shorter time). Depending on the design of the venue, these differences may put pressure on walkways and other means of exit.

13.64 Queuing systems may include a combination of signage, stewards and the use of barriers to guide people, manage crowd flow and prevent 'queue jumping'. Queuing systems that require the use of barriers should incorporate emergency access points and escape routes. When considering the use of barriers, it is important to select the correct product and to ensure that it allows for unimpeded pedestrian movement. (See The Purple Guides [Chapter 12](#) on Barriers and Fencing.)

13.65 Where people queuing are stationary for long periods of time, operate a policy of allowing entry and exit from the queue to access facilities. To ensure that they can be kept informed or given notice of entry conditions, deploy a public address system or stewards with loudhailers.

13.66 Queues that form inside a venue may require a different plan, including managing crowd flow, maintaining exit routes, effective distribution between concessions (bars, catering, etc) and access to toilets. Consider projections and planning for peak movements inside a venue.

ALL-STANDING VIEWING AREA

13.67 When planning an event to provide space for an all-standing audience, ingress and egress, crowd density and crowd behaviour need to be considered. Ingress relates to the audience gaining access to and being appropriately distributed throughout the standing area and it will also involve an assessment on how stewards can reach people who may need assistance. Egress includes people departing from the standing space in both normal and emergency conditions, and will involve a clearly identifiable route from the standing area.

13.68 An event that involves a standing audience presents a possible risk arising from changes in crowd density and this can be influenced by poor sight lines, adverse behaviour on a stage or playing area, or crowd disorder. Audience, performer or participant profile, including any associated crowd behaviour, should be factored in during the planning stage and risk assessment. (See also Performer and participant profile, 13.19; and Audience profile, 13.21.)



INTERNAL CIRCULATION

13.69 When planning an event with continuous competitive entertainment, the organiser should consider the location of attractions to ensure crowds can be accommodated within specific areas without impacting on competing activities. Safe capacities should then be applied to these areas based on lines of sight and audience profiles. (See also Occupant capacity, 13.27; and Performer and participant profile, 13.19.)

EGRESS

13.70 Before the public are admitted to an event, ensure that pre-opening safety checks are carried out and recorded. Stewards may carry out some of these checks if so, the event organiser must ensure that clear instructions are given. The checks related to egress should include:

- all exits are unlocked;
- all pedestrian routes are clear;
- emergency lighting works.

EXITS

13.71 Ensure that exits are clearly signposted and operate effectively. Consider the needs of children and people with mobility difficulties. Pedestrian egress should be separated from those used by emergency services, concession vehicles and, where possible, general car parking. Certain exits may only be available to the audience in an emergency and at the end of an event during normal egress. Information about any limitations should be made available to the audience. (See The Purple Guides **Chapter 3** on Venue and Site design for more information on entrances and exits).

EMERGENCY ARRANGEMENTS

13.72 A key element of the event safety management plan is the preparedness for emergencies and the response that should be provided.

Show stop

13.73 'Show stop' is a term used for an agreed procedure to stop an event, where an immediate threat to life has arisen, and requiring urgent intervention to protect persons attending or others working at an event. Personnel involved in the Show stop procedure may include, but are not limited to: the event organiser, crowd manager, safety officer, referee, performer, security and stage manager.

13.74 Stopping an event, particularly when it affects the main attraction, is not a decision to be taken lightly. Some situations are clearly life threatening, while others will require subjective opinions of those monitoring safety at the event. Threats to life may include:

- crowd collapse;
- structural collapse;
- fire;
- excessive crowd density.

External threats could include:

- bomb threat;
- inclement weather;
- chemical incident.

The activation of a Major Incident Plan or significant crowd disorder may also necessitate the use of Show stop.

13.75 The Show stop procedure should be produced by the event organiser, documented, and communicated in advance to all key personnel. Persons involved should be clear about their roles and responsibilities in the event of an emergency situation.

13.76 Preparing a Show stop policy:

- document the procedure;
- identify key persons involved;
- provide an appropriately detailed briefing;
- organize a process for monitoring safety during the event;
- devise clear lines of communication between key agencies;
- draw up a pre-agreed text for public announcements.

13.77 Persons who can initiate a Show stop procedure should be clearly identifiable and experienced to make such a decision. The rationale behind the Show stop procedure should be communicated in advance to the management of the performer or participants and agreed at the event safety meeting. A decision should be made on who should communicate with the performer or participants in the event of an emergency. Similarly, an individual should be identified to communicate with the audience. This may be a performer but an appropriate alternative should be in place as some performers may not be suitable to address an audience during an emergency. The role should be undertaken by a willing, calm and competent individual who can communicate effectively.

13.78 The performers should, wherever possible and only if safe to do so, stay on the stage during the announcement with the audience.

13.79 A dynamic risk assessment should be made as to whether it is safe to carry on with the event or halt the event altogether.

Recovery

13.80 Where the risk has been reduced to a tolerable level, the decision to restart the performance/event can be made, but it is strongly recommended that this decision is only made after consultation with key agencies on site.

Postponement and cancellation

13.81 A number of crowd management issues may arise if an event is either postponed or cancelled. The level of response should be planned as a contingency and will be dependent on the period between the event being called off and when it was due to start, or if the event ceases after the public have been admitted to the venue.

13.82 To ensure that the public receives the correct information and are directed appropriately, stewards will need a concise and consistent briefing to provide the following information:

- details relating to refunds or rescheduled date;
- changes to public transport.

13.83 Various forms of media - local, national and social, should be considered as ways to communicate with an audience or the wider public. Depending on the reason for the event ceasing, people attending events may need additional assistance to contact family or friends.

Evacuation

13.84 Evacuation of a crowd often results from more than one factor and the reason may be unseen by both audience and staff. The decision to evacuate could have a significant impact on crowd safety and ,therefore, should be taken by the event organiser, venue manager or other designated person in authority and, where established, in conjunction with the event liaison team.

13.85 Stewards will require an advanced briefing to ensure they understand their role during a localised, partial or full evacuation to direct and assist members of the audience and staff towards the nearest usable exit, safe area or rendezvous point. A briefing note to stewards should include their actions, plus details of any pre-arranged messages, including code words or statements that may be broadcast. (See The Purple Guides **Chapter 4** on Contingency and Emergency Planning.)

Competencies of the crowd management workforce

13.86 The main responsibility of all personnel, either professional or volunteer, involved with implementing a crowd management plan is public safety. They are also there to assist the police and other emergency services. Apart from the specialist workers provided for the protection of the performers, the use of separate teams for security and stewarding should not be considered without consultation between all interested parties. The crowd management plan should detail roles and responsibilities of all those involved in providing crowd management to ensure they are closely inter-linked.

Crowd management suppliers

13.87 Depending on the level of stewarding required and results of a risk assessment, an event organiser may consider employing the services of a crowd management contractor. To identify the correct supplier for a particular event, consider the following:

due diligence financial solvency, legal status and quality assurance;
 credentials references from previous customers and evidence of relevant experience;
 industry accreditation membership of trade associations and/or status as a Security Industry Authority (SIA) approved contractor.

Paid staff

13.88 Stewards carry out safety critical tasks and, if paid, should be subject to formal employment processes, which include the following:

recruitment the submission of a formal application and appointment subject to relevant screening, vetting and Right to Work status
 terms and conditions explaining rate of pay, hours of work, job specification and conduct

Use of volunteers

13.89 Volunteers employed to carry out crowd management duties should be given a level of training comparable to that of paid stewards and relevant to the event. If the workforce is a mix of paid and volunteer stewards it is important to define roles and responsibilities and how they are supervised and managed.

Duties and competencies

13.90 A crowd management stewards duties include:

understanding general responsibilities towards the safety of all categories of audience (including those with special needs and children), other stewards, event workers and themselves;
 carrying out pre-event safety checks;
 being familiar with the layout of the site and able to assist the audience by giving information about the available facilities, including first aid, toilet, welfare and concessions;
 staffing entrances, exits and other strategic points, e.g. exit doors or gates that are not continuously secured in the open position while the event is in progress;
 controlling or directing audience members entering or leaving the event, to help achieve an even flow of people into and from the various parts of the site;
 recognizing crowd conditions to ensure the safe dispersal of audience and the prevention of overcrowding;
 assisting in the safe operation of the event by keeping gangways and exits clear at all times and preventing standing on seats and furniture;
 investigating possible safety incidents;
 being aware of and reporting possible fire hazards;
 responding to emergencies (such as the early stages of a fire), raising the alarm and taking the necessary immediate action;
 being familiar with the arrangements for evacuating the audience, including coded messages and undertaking specific duties in an emergency;
 communicating with the event control center in the event of an emergency.

Role of security

13.91 The Security Industry Authority (SIA) regulates the role of security personnel to undertake 'licensee activity'. Licensed security personnel may be an essential part of the crowd safety management plan. (See Security, 13.106.)

Training and education

13.92 Ensure that all personnel are competent so that they can carry out their duties effectively. The level of training will depend on the type of functions to be performed and there are recognised qualifications, such as:

Certificate in Event and Matchday Stewarding (CEMS);
National Vocational Qualification Levels 2 - 4; Spectator Safety;
Foundation Degree Level 5; Crowd Safety Management;

13.93 Records of training must be kept and include the following:

date of the instruction or exercise;
duration;
name of the person giving the instruction;
name of the person(s) receiving the instruction;
nature of the instruction or training;

If the training given is not a course accredited by an awarding body, it is important to ensure that all stewards are trained in fire-safety matters, emergency evacuation and dealing with certain incidents. Additional training should be considered for stewards working in a front-of-stage area so that they are able to lift distressed people out of the audience safely and without risk to themselves;

Quantity and deployment of staff;
Quantity of stewards.

13.94 The risk assessment will help establish the number of stewards necessary to manage the audience safely. An example of some of the matters to be considered for the risk assessment include:

relevant licence conditions;
arrival, ingress, circulation and egress;
emergency and evacuation procedures;
audience profile;
previous experience of specific behavior associated with the performers;
uneven ground, presence of obstacles, etc, within or around site, affecting flow rates;
length of perimeter fencing;
type of stage barrier and any secondary barriers;
provision of seating;
rendezvous points;
position of temporary structures;
location of toilets;
location of food and drink outlets;
sight lines to the performance area;
weather;
event timings & duration.

13.95 Prepare a specific crowd risk assessment at the proposed venue so that a comprehensive site survey can be conducted, and include:

the topography and complexity of the site and surrounding area;
the expected number of attendees and audience profile;
any other factor that could affect the safety of the audience, e.g;

temporary structures

positioning of amenities

methods of communicating with the audience during normal and emergency conditions

13.96 Basing stewarding numbers on the risk assessment rather than on a precise mathematical formula will allow a full account to be taken of all relevant circumstances, including previous experience. For effective crowd management, position fully trained and briefed stewards at key points including barriers, gangways, entrances and exits, temporary structures, seating and standing areas.

Organisation of stewards

13.97 There should be an established clear chain of command. Consider appointing a crowd manager to be responsible for the management and co-ordination of all crowd management contractors for your event. This could be a role of the safety co-ordinator if he/she is competent in crowd management strategies. The arrangements will depend on the nature and size of the event, and venue but may include:

a crowd manager

a number of senior supervisors, responsible for specific tasks, who report directly to the crowd manager

a number of supervisors who report directly to a senior supervisor and who are normally in charge of a number of stewards

13.98 Ensure that stewards receive a written statement of their duties, a checklist (if this is appropriate), and a plan showing key features. Brief stewards before the public are admitted to the event, particularly about communicating with supervisors and others during emergencies or in the event of a major incident.

Conduct of stewards

13.99 All stewards should wear distinctive clothing and be individually identifiable by means of a number that is clearly visible. They need to be fit to carry out their allocated tasks, and while on duty they should concentrate only on their responsibilities. Ensure that stewards understand that they should:

not leave their place without permission;

not consume or be under the influence of alcohol or other drugs;

remain calm and be courteous towards all members of the public;

be prepared to accommodate the different needs of the audience (e.g. disability, language, etc)

Staff welfare

13.100 Event Organisers, in liaison with their Crowd Management supplier(s), should consider the arrangement of suitable welfare facilities for crowd management personnel with regard to toilets, shelter, food and refreshments. At longer events consideration should be given to camping space and other forms of accommodation.

Multi-agency liaison and event control

13.101 In the planning process of any event, consideration should be given to actively involving the various agencies that may have a direct influence on crowd management or be impacted upon by the activities of crowd management personnel. These agencies may include:

police;

medical and ambulance services, including voluntary sector, e.g. St John Ambulance, St Andrews First Aid, British Red Cross;

fire and rescue services;

Local Authority, e.g. licensing, environmental health, etc;

coastguard;

safety consultants;

public transport.

Individuals from within these organisations and who have an active part in the operational delivery of the event may wish to be represented in the event control room.

13.102 The size, scale, location and risk assessment of an event will determine the need for an event control room. The dimensions and type of facility under consideration as an event control room should also take into account the following:

- its location in proximity to the event;
- number of agencies and personnel to be housed;
- the type of facility, e.g. building, tented accommodation, etc;
- the need to sound proof the facility;
- the need to make it a comfortable environment in which to work;
- provision of appropriate power supply to serve a number of outlets, e.g. light, heat, AC, IT equipment, CCTV and communications systems.

13.103 A large-scale event control room may need to have a person who manages the activities within to ensure the effective exchange and recording of information between agencies. Consideration should also be given to restricting access to an event control room to essential personnel only.

13.104 As part of the overall event contingency plan, and subject to the outcomes of the risk assessment, an alternative control room location should be identified to ensure that some form of central control is still available should there be a power failure or a need to evacuate the facility.

13.105 Event control has been given many different names and the more common are Emergency Liaison Team (ELT), Event Liaison Team (ELT), Joint Agency Control Center (JACC) or Joint Operations Control Center (JOCC).

Security

13.106 Security personnel are often an integral part of the crowd management operation at an event. Whether or not security personnel are hired individually or through a company, they must hold a valid Security Industry Authority (SIA) licence. The three licences that are most often required are:

- door supervisor;
- CCTV;
- close protection.

In certain situations, such as guarding an event site outside of public hours, a Security Guard licence may be sufficient.

13.107 An event organiser must ensure that if they are considering the need for security as part of their event personnel, they refer to the appropriate legislation and guidance. Further information on security can be found at www.sia.homeoffice.gov.uk

Logistics

13.108 All crowd-management operations require equipment, uniforms and facilities, including parking for vehicle, e.g. staff buses. Medium to large-scale events are likely to require an appropriate area so that staff can be properly briefed before deployment. Consideration should be given to an area allocated and serviced for welfare and a need for office type accommodation to allow the Crowd Manager and team to efficiently administer the deployment of groups of staff. Secure storage for equipment, staff clothing and/or bags should also be considered.

14. Special Effects

Details Last Updated: 07 June 2016



Please note: The information contained in this guide provides pointers to legislation and good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

Key points

The use of special and visual effects at an event must be properly planned.

Risks associated with special effects should be assessed by a competent person and effective risk control measure implemented.

Those involved in the planning, assembly and execution of special effects must be suitably trained and competent.

Adequate time and resources must be provided to prepare and rehearse.

Secure facilities must be made available for the assembly, fusing etc. of explosive effects before their use.

Arrangements must be made in case of an emergency.

This chapter aims to provide practical guidance on the safe use of special and visual effects. It does not specify a particular way of achieving safety, but sets out a general approach. Reference should also be made to the specific chapter (to be published shortly) on fireworks and pyrotechnics; to the Fireworks Act 2003 and to the Firework Regulations 2004.

WHAT THE LAW SAYS

14.1 Event organisers and special effects contractors have duties under the Health & Safety at Work etc. Act 1974, the Management of Health and Safety at Work Regulations 1999 (the Management Regulations) and the Provision and Use of Work Equipment Regulations 1992. These regulations require employers to:

a) Assess the health and safety risks involved in the work activity, including:

Risks to employees and the audience who may be exposed to those risks (e.g. risk of exposure to hazardous laser radiations).

Risks to anyone external to the event site who may be indirectly affected.

b) Put in place measures to control these risks so far as is reasonably practicable.

c) Ensure the equipment being used is suitable.

14.2 Event organisers have a duty under the management regulations to co-operate with the special effects contractor so that they can complete a display safely. If the event is in fixed premises, the organiser and the special effects contractor will also need to liaise with the venue management.

14.3 As explained in chapter 10 on fire safety, The Dangerous Substances and Explosive Atmospheres Regulations (DSEAR) 2002 require, among other things, employers to:

Find out what dangerous substances are in their workplace and what the fire and explosion risks are.
Put control measures in place to remove those risks or, where this is not possible (or desirable because an explosion or fire is the desired effect), reduce and control the risks.

Further information on DSEAR can be found at <http://www.hse.gov.uk/fireandexplosion>

14.4 The Control of Artificial Optical Radiation at Work Regulations 2010 aim to protect workers from the risks to health from hazardous sources of artificial optical radiation (AOR) (for example lasers). These regulations do not apply to members of the public. Guidance for employers on these regulations can be found at <http://www.hse.gov.uk/radiation/nonionising/employers-aor.pdf>

PLANNING FOR SAFETY

14.5 The risks associated with the use of special and visual effects at an event must be assessed by a competent person. Event organisers should incorporate the findings of any contractors' risk assessments into their overall event management plan. In particular, event organisers should ensure that:

The special effects personnel involved are competent for the work they are undertaking. For general advice on assessing the competency of contractors see chapter 2.

Special effects personnel are provided with adequate information regarding the event (i.e. location of the audience, display timings etc.).

Adequate time and resources are allowed for both rehearsal and preparation. Advice on this should be sought from the special effects personnel.

Appropriate arrangements have been made for emergencies (such as fire-fighting and first aid).

Consideration is given to the effects of smoke from effects such as fireworks and pyrotechnics drifting beyond the event site. Any potential safety risk will depend on things like the size of the display, its proximity to high risk areas, weather and wind conditions as well as localised micro climate effects.

The time allocated to the effect allows for delays due to misfire or changes of plan.

Adequate communication arrangements are in place.

Secure facilities are available for the assembly, fusing etc. of explosive effects before their use.

That the display firing and control operation area is suitably located at the correct distance for safe operation and with a clear line of sight.

14.6 The person in charge of the special effects should remain responsible at all times for advising on the safe planning and execution of the effect. They are responsible for:

Ensuring the effect is adequately planned, including conducting a full site specific risk assessment and communicating the significant findings and controls to the event organiser.

Liaising with other appropriate people.

Specification and procurement of all explosives, pyrotechnics and other related materials.

Ensuring all materials are fit for purpose and that their use complies with relevant legislation.

The safe transportation, storage and use of all explosives, pyrotechnics and other materials used in the effects.

Ensuring only competent people are employed.

Developing emergency procedures and identifying emergency equipment such as for fire-fighting or providing first aid.

Some key special and visual effects – hazards and control measures



THEATRICAL AND STAGE PYROTECHNICS

14.7 Pyrotechnics typically include stage gerbs, stage fountains, stage mines, flames, fireballs, and smoke effects. Most are explosives and, as such, are potentially dangerous. Pyrotechnics are generally associated with the theatre and stage areas where they are used in close proximity to the audience. Typical hazards arising from these effects include:

Flash, heat or fire.

Blast effects due to pressure waves.

Projectiles and other debris.

Noise.

Toxic effects.

Improper operation due to damage in transit.

Partial or premature functioning or misfires.

Spurious radio signals (e.g. mobile phone emissions interfering with firing and control systems).

Flashover from high-tension electrical lines due to the presence of ionised particles in the air following the firing of an effect.

14.8 The event organiser should ensure that appropriate measures are in place to prevent or, where this is not reasonably practicable, control the risks to employees (including volunteers and contractors), other contractors and the audience from special effects.

14.9 The organiser and person in charge of the special effects should thoroughly plan the effect and the measures taken to control any risks. If necessary, seek specialist advice.

14.10 There are a number of methods for reducing the risk to employees and the audience from special effects. These include:

Reducing flash or radiated heat to the lowest possible level.

Substituting hazardous substances with less hazardous ones.

Minimising noise and blast to the lowest possible level.

Minimising the level of fragmentation particles and other debris.

Determining and enforcing exclusion zones. Exclusion zones are a key part of event safety whenever pyrotechnics (or fireworks) are used and should be clearly defined at the outset by the special effects personnel in consultation with the event organiser. The dimensions of the exclusion zone and any other controls needed should be determined by a risk assessment.

Providing appropriate fire-fighting equipment and training in the use of this equipment.

Putting in place safe methods of work and procedures for firing the display, including appropriate cueing arrangements.

Establishing a procedure for dealing with safe partial functions or misfires.

Having a good and reliable communication system in place and ensuring that all involved know what is happening and are fully aware of their responsibilities.

Ensuring all those on the firing site are provided with the appropriate personal protective equipment (PPE).

Banning or screening mobile or other radio transmitting equipment from the exclusion zone(s).

Not completing the firing circuit until the last possible moment to prevent accidental firing.

Ensuring that emergency arrangements are in place for dealing with effects that do not go according to plan.

14.11 As some events sites can be spread over a wide area a robust method of communication must be put in place which will remain effective in all foreseeable situations. All those involved should be thoroughly briefed before the event about the effects being used, the risks arising from them and the procedures to be followed should anything go wrong.

14.12 There should be effective means to warn and exclude people from any danger area. The event organiser, in consultation with the person in charge of the special effects, is responsible for ensuring that adequate arrangements are in place for managing and policing the controls, such as any exclusion zone.

14.13 There should be agreed systems to stop the effect immediately if there is any risk to people.

14.14 Nominated special effects personnel must be responsible for:

The specification and procurement of the explosives, pyrotechnics and other materials to be used in the effect.

Ensuring that all materials are fit for purpose and comply with all legislation relevant to their safe transportation, storage, handling and use. See www.hse.gov.uk/explosives/index.htm for further details.

Managing procedures for partial functions or misfires.

Safe removal/disposal of unused materials.

14.15 There should be an agreed, clear and unambiguous system for cueing an effect. This may need to incorporate both sound and vision.

14.16 The special effects person responsible for setting off any explosive, pyrotechnic or fire effect should have clear sight of it and its immediate surroundings.

14.17 The cueing arrangements should be rehearsed in situ before the effect is performed.

14.18 Wherever possible the use of the effect should be rehearsed as this can help to minimise the risk of it going wrong. Testing the planned control measures is also an effective way to reduce any risks. All those involved in the final sequence should be present at the rehearsal, or re-rehearsal, and should be made fully aware of the action intended, the risks, control measures and emergency arrangements.

14.19 Procedures and equipment should be in place to ensure that the person supervising the effect receives clear and unambiguous confirmation that danger areas are clear before setting off the effect. That person should have a direct line of sight to the effect and exclusion zone. They must also be in direct communication with all key personnel.

14.20 Before commencing any effect, checks should be made by the event organiser, together with the person in charge of the special effects, to ensure effective exclusion zones are in place and manned as necessary and that all appropriate PPE is worn.

14.21 Firing circuits should not be connected or armed until the last possible moment to minimise the risks of accidental firing.

14.22 In the event of a partial function or misfire, no one should approach the area until the person in charge of special effects has checked the area and declared it safe.

14.23 The safety procedures for dealing with partial functions or misfires should be detailed in the risk assessment. These should include:

Steps to be taken to make the effect safe.

The PPE required.
The exclusion zones required.
The steps to be taken for disposing of the effect (e.g. explosives).

SMOKE AND VAPOUR EFFECTS

14.24 In certain circumstances, smoke and vapour effects can produce toxic or suffocation hazards so it is important that a competent person is involved in managing these and that event organisers heed their advice. Further details about them and their safe use can be found in HSE Entertainment Information sheet No 3 Smoke and vapour effects used in entertainment (<http://www.hse.gov.uk/pubns/etis3.pdf>) (Note: This is currently being revised but a new version is unlikely to be published before 2015)

FLAME EFFECTS

14.25 There are risks with all types of flame effects used in entertainment which should be carefully assessed and managed to ensure their safe use. The risks are not only with fire but also with the materials (such as gas) used to produce these effects.

14.26 It is essential that event organisers employ a competent person to manage these effects and that they heed their advice. For the safe use of liquefied petroleum gas (LPG) fired stage flame effects see HSE SIM 05/2004/09. (http://www.hse.gov.uk/foi/internalops/sims/cactus/5_04_09.htm)

DISPLAY LASERS

14.27 Most lasers that are used in entertainment have outputs high enough to cause a significant risk of eye injury and sometimes skin burns.

14.28 Display laser safety assurance is mainly about hazardous laser beam identification and, where required, personal access restriction. Suppliers have a key role in display laser installation safety assurance. They must design and build systems that will be safe as far as is reasonably practicable.

14.29 HSE has published comprehensive guidance on the safe use of lasers and how this can be achieved in Radiation safety of lasers used for display purposes (HSG95) - <http://www.hse.gov.uk/pubns/books/hsg95.htm> (Note: This is currently being revised by PLASA who will be publishing the revised guidance. When this is published HSG95 will be withdrawn). There is also an explanatory leaflet: Controlling the radiation safety of display laser installations (INDG224). <http://www.hse.gov.uk/pubns/INDG224.htm> (Note: This leaflet is due to be updated by the HSE)

14.30 A safe display laser installation should have the following features:

- (a) Protective housings for laser systems and effects heads.
- (b) Masking around laser apertures to restrict errant beams should they arise.
- (c) Robust and rigidly mounted laser system(s) and external optical components, so that emission misalignments cannot occur.
- (d) Controlled emissions that do not expose people above the applicable Maximum Permissible Exposure value (MPE), even when reasonably foreseeable faults occur.
- (e) Emergency safety cut-off devices that terminate a display when problems occur.
- (f) Key control for tamperproof operation.

14.31 Suppliers should provide information on equipment safety checks and maintenance procedures for users and safety information for installers who set up their products.

14.32 Suppliers who are also installers should provide information on the administrative safety arrangements the user needs to make, for example:

- (a) Laser controlled area demarcation requirements.
- (b) Supervision requirements.

14.33 Suppliers who are also installers need to make proper installation commissioning arrangements. Laser safety officers have a role in this process.

14.34 HSG 95 also gives practical guidance about the use of lasers for audience scanning, participation and illumination. It details the necessary safety features of display installations that are intended to expose people to laser beams. It is important to recognise that the use of diffraction effects, as well as scanned laser beams, may be hazardous..



HIGH-POWER (SCENIC) PROJECTORS

Xenon and Hydrargyrum medium-arc iodide (HMI) lamp systems

14.35 Both of these lamp systems carry significant risks to people from a number of sources if misused. It is vital that operators should be competent in the special handling procedures when using xenon and/or HMI lamps.

14.36 Xenon lamps can burst violently when cold, so gauntlets covering wrist arteries, chest protection and a full-face visor covering neck arteries should be worn while handling them. Xenon and HMI lamps reach high pressures around 30 bar and temperatures (around 95°C) when energised.

14.37 A lamp burst is possible in either lamp type when fully energised, resulting in danger from flying glass, burns and fire. When xenon lamps are being installed, warn other workers of the dangers and ask them to leave the area for the few minutes it takes to install the lamps.

14.38 The lamp housings of commercial high-power projectors are designed to withstand a lamp burst and to contain the glass within the housing, even if the burst happens when energised, so they should pose no danger to the audience if installed and operated properly.

14.39 The arc of xenon and HMI lamps is very bright and housings are designed so that the arc cannot be viewed directly by the operator. Ensure people are not put at risk by 'blinding' them with the light, especially if they are moving around in otherwise dark environments (e.g. while entering or leaving a venue or on stairs).

HIGH-POWER PROJECTORS

14.40 Projectors for displaying moving or static images should be positioned so they are not accessible to the audience. Follow the manufacturer's instructions for any exclusion zones in front of the projection lens, taking account of workers' exposure limits as set out in the Control of Artificial Optical Radiation at Work Regulations 2010.

GENERAL REQUIREMENTS

14.41 All types of high-power projection systems require significant amounts of electrical power. Typically, these are 32A three-phase power for xenon lamps and 32-63A single-phase power for HMI lamps per projector. Electrical systems installed for high-power projectors should take this into account and cabling should be rated accordingly (see Chapter 11 on 'Electricity and lighting').

14.42 Provide enough dry powder or carbon dioxide fire extinguishers to ensure coverage of all the areas that house scenic projectors. Staff should be trained in their use.

14.43 Projection towers should be stable and suitable for the loading to be placed on them.

14.44 Ensure there is sufficient working space around systems.

14.45 House projectors being used externally in a weather proof projection structures. Water must not enter the projector while in operation as this could cause explosions.

14.46 Protect projectors against unauthorised interference and ensure they are staffed by (or readily accessible to) a competent technician at all times when in use.

14.47 Ensure lamps are used correctly to restrict exposure to ultraviolet (UV) radiation which, in extreme circumstances, can cause retinal or skin damage. UV lamp operators should be briefed about the emission characteristics of the lamps so that applicable exposure limits are not exceeded.

14.48 To remove UV radiation, some lamps have a double skin; other manufacturers provide lamp housings with separate filters. Lamps should not be used if the outer skin is broken or if the housing filter is not in place. A number of bulbs are now available for entertainment lamps with integral filters.

14.49 When replacing lamps or other components that could affect the radiation output, it is important that the manufacturer's advice is followed and that the correct lamps are installed. To avoid installing incorrect replacement lamps, the manufacturer's lamp specification must be identified as otherwise mistakes can be made (e.g. germicidal units could be used in an entertainment application by mistake).

14.50 Provide designated personnel with access to an emergency cut off switch for the power supply.

STROBE LIGHTS AND EQUIPMENT CAPABLE OF STROBING

14.51 Carefully consider the use of strobe lights and any equipment capable of strobing (e.g. video displays and LED screens), because under some conditions they may act as a trigger for flicker or photosensitive epilepsy in some people.

14.52 Whenever strobe lights are used, arrange for a prior warning to be given at the entrance to the event or in the programme.

14.53 If strobe lights are used, keep flicker rates at or below four flashes per second. Below this rate it is estimated that only 5% of the flicker-sensitive population will be at risk of an attack. Where more than one strobe light is used, the flashes should be synchronised. Care should also be taken with LED lighting systems, which are capable of being switched on and off in effectively the same manner as strobe lights.

14.54 To reduce risk further, mount lights as high above head height as is practical. Where possible, the lights should be bounced off walls and ceilings or diffused by other means so that glare is reduced. These lights should not be used in corridors or on stairs.

14.55 Avoid continuous operation of strobe lighting for long periods. Further information can be found at www.nhs.uk/Conditions/Epilepsy/Pages/Causes.aspx.

15. Amusements

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

During the planning stage, consider the type of amusements and attractions that will be present at the event

Amusements and attractions may include fairgrounds, individual fairground rides, inflatable devices (e.g. bouncy castles), bungee jumping, fire-eaters, etc.

Carefully choose the location of attractions to ensure the ground is suitable (probably best left to the controller/lessee, along with the layout plan, if there are multiple devices) but communication between the two parties would be advised.

Check there is proper access for emergency vehicles

Ensure the layout of attractions allows safe circulation of crowds

Clearly define responsibilities for managing health and safety

Event organisers should ensure that ride controllers inspect and maintain their equipment and comply with their duties as operators so that their rides can be run safely

15.1 This chapter provides an overview of the steps organisers and others need to take to ensure the health and safety of employees working on rides and attractions as well as members of the public using them.

15.2 More detailed, in-depth advice on the management of fairgrounds and rides is provided in the Health and Safety Executives (HSE) Fairgrounds and amusement parks: Guidance on safe practice (HSG175), available as a free download from <http://www.hse.gov.uk>

15.3 Guidance on safety of inflatable devices is available from MUTA (also known as the Performance Textiles Association), which manages the PIPA Inflatable Play Inspection Scheme (www.pipa.org.uk), and the National Association of Inflatable Hirers (<http://www.naih.org.uk>).

15.4 Guidance on the safety of fairground rides is available from the Amusement Device Safety Council (ADSC) who administer the ADIPS Ride Inspection Scheme (www.adips.co.uk)

15.5 The Health and Safety at Work etc Act 1974 (HSWA) and associated health and safety regulations place duties on a wide range of people. It is vital that they are fully briefed as to their duties prior to any attractions being erected.

THE EVENT ORGANISER

15.6 As explained throughout this guide, the event organiser has a duty to ensure, so far as is reasonably practicable, the health, safety and welfare of everyone working at or attending the event. This includes any amusements or attractions that are part of the event. This duty will be retained even if a contractor is employed to manage the attractions on site.

15.7 Where an amusement site organiser has been contracted, just like any other contractor, the event organiser should do all that is reasonably practicable to ensure they are competent and adequately resourced to undertake their safety role effectively. This typically might involve undertaking an overall amusement site risk assessment as well as obtaining evidence of ground cover insurance and evidence that all relevant device test certificates are valid before opening to the public.

THE AMUSEMENT SITE ORGANISER

15.8 Whether the event organiser takes on the role of amusement site organiser or contracts one in for the event this person should have operational control of the fairground or attraction area and be responsible for safe layout and emergency procedures within that area.

15.9 It is essential that the amusement site organiser has the necessary safety and technical competencies. This means they should have the appropriate skills, knowledge and experience to be able to identify the serious hazards and risks, and ensure these are controlled effectively. The amusement site organisers aim is to ensure the safe operation of the amusement/attractions by taking overall responsibility for the management of the site. They will need to:

- identify any control measures needed to avoid or reduce risks to the public and employees;
- ensure rides on site are sited and set up in a safe manner;
- have a policy in place for organising, planning, monitoring, controlling and reviewing activities that affect the safety of people in the attraction area;
- check all controllers have current insurance for all devices on site, operational device risk assessments and where relevant documentation to demonstrate that it is fit for use (e.g. valid test certificates such as ADIPS or PIPA certification or tags);
- Have an emergency rescue and evacuation plan and contingency for mechanical and/or power failure

RIDE CONTROLLERS

15.10 Ride controllers normally own or otherwise have control of a ride or attraction, and have a duty to maintain it correctly and ensure it is operated safely. Controllers, whether present or not, must provide competent operators and co-operate with both the amusement site organiser and the event organiser. Specialist industry trade associations can generally provide competent controllers. Specialist trade associations include:

- Showmens Guild of Great Britain (SGGB)
- Association of Independent Showmen (AIS)
- Society of Independent Roundabout Proprietors (SIRPS)
- Amusement Catering Equipment Society (ACES)



OPERATORS

15.11 Operators in immediate charge of a ride or attraction have a duty to conduct daily and running safety checks on the ride, and to operate it safely. They should be trained in their role so they can manage and run the ride safely in all conditions, including an emergency. They should also be trained in the evacuation of the ride in all foreseeable circumstances.

ATTENDANTS

15.12 Attendants help to operate an attraction and have a duty to take reasonable care for their own safety, the safety of the riders and others, and to follow instructions from the operator and the device operational risk assessment. They should receive the necessary information, instruction, training and supervision to do this. The correct level of operators and attendants should be present at all operational times to ensure safe operation in normal and emergency conditions.

TYPES OF ATTRACTIONS AND COMMON HAZARDS

15.13 Whether the event includes a complete fairground or just an inflatable device, wherever possible these attractions should be sourced from reputable suppliers/operators belonging to recognised trade bodies, such as the:

Showmen's Guild of Great Britain (SGGB)
 Association of Independent Showmen (AIS)
 Society of Independent Roundabout Proprietors (SIRPS)
 Amusement Catering Equipment Suppliers (ACES)
 MUTA (also known as the Performance Textiles Association)
 National Association of Inflatable Hirers (NAIH)

15.14 Hazards on fairground rides include fast-moving machinery, electricity, etc. These should all be managed properly, but accident investigations suggest that this is sometimes not the case. Common accidents are:

- operators falling from height when building or pulling down rides;
- poor maintenance, set-up or inspection of rides leading to injury, breakdowns or collapse, slack operating procedures, such as rides being run too fast, riders not being properly secured in the ride and height restrictions not being enforced;
- inadequate fencing of fast-moving rides;
- inadequate or absent rescue procedures to get riders off if the ride stops unexpectedly for any reason;
- inflatables not being effectively secured to the ground using pegs or suitable alternatives (e.g. water ballast, tying to other secure immovable objects).
- unchallenged inappropriate behaviour, such as riders standing up;

ground conditions not being suitable for the devices and the ineffective packing/stabilising of devices;
insufficient space for emergency vehicle access and public evacuation

15.15 Individual rides and attractions may have multiple electrical circuits ranging from 415v AC to 12v DC. They may also incorporate hydraulic and pneumatic equipment, flammable gases and electrical generators. These should all be sound, and properly maintained and managed by a competent person.

15.16 Due to the risk of inclement weather, electrical equipment with an outside exposure to the elements may need to be tested or inspected more frequently and thoroughly by competent personnel.

15.17 It is relatively unusual for a complete circus to be part of an event. It would be more common to find individual performers, such as fire-eaters, stilt-walkers and jugglers, working in and around the venue or site. Performers should be briefed about general safety matters, as well as those that relate directly to audiences and their own personal safety. They should be told:

the times they can perform;

the areas they safe to work in; and those they are not (e.g. well away from the safety envelopes of moving devices and hazardous areas).

that they must not impede public thoroughfares and emergency exits.



FAIRGROUND RIDES AND INFLATABLE DEVICES

15.18 Fairground rides and inflatables are work equipment that, under law, require regular inspection. This should be carried out annually by a competent person and the ride owner/controller should be able to provide evidence that this has been done.

FAIRGROUND RIDES AND ATTRACTIONS

15.19 Fairground rides can range from relatively simple designs such as small juvenile rides and inflatable bouncy castles, to large high thrill rides of considerable complexity.

15.20 Fairground attractions where the public do not ride on anything but participate in a game of skill or chance (Hook the duck or Side Stalls air rifles etc.), usually housed in round and side stalls which may not require ride test certificates such as a DOC (see 15.33) However, they should have an operational risk assessment available that will include fire and electrical safety control measures. Such control measures may include certificates of annual electrical testing, proof of the fire retardence for any canopies or tarpaulins, or the testing of emergency equipment, such as fire extinguishers.

15.21 Fairground rides should be operated in accordance with HSG 175 Fairgrounds and Amusement parks Guidance on safe practice. Detailed guidance on business design, manufacture and inspection can be found in within BSEN 13814 Fairground and Amusement part Machinery and Structure Safety and various ADSC publications.

15.22 HSG 175 details a series of pre-use and in service inspections which apply to all fairground rides and inflatable devices. The fairground trade associations support this guidance as an appropriate inspection and certification system for all fairground rides. Most members have to comply with the requirements of HSG175 as a condition of business membership.

INFLATABLE DEVICES

15.23 Inflatable devices on amusement sites should be constructed and operated in accordance with BS EN 14960 Standard for Inflatable Manufacture and Use. All devices will have a label attached confirming this and detailing the maximum number and sizes of users.

15.24 Some inflatable devices are classed as 'artistic installations' or 'temporary structures', as opposed to play equipment, and BS EN 14960 may not be a relevant reference in these cases. For the latter type of installation, MUTA has published Guidance for the Design, Procurement & Use of Inflatable Temporary Structures. Every inflatable installation must be adequately secured to prevent inadvertent movement and ensure it is safe for its intended use. A non-conforming inflatable artistic installation should have its own bespoke specific design calculations, method statements and risk assessments.

15.25 Inflatable structures are particularly susceptible to the wind because of their height and weight. They must be erected on suitable ground and all of the fitted anchor points must be used. If they are to be sited on ground not suitable for spikes, they should be secured in a way that provides at least the same level of security. The Operational risk assessment should contain details of this and give details of maximum wind speed for use these must be adhered to. Further details of this should be found within the manufacturers instructions or operating manual. An important point to note is how the operator is going to monitor the wind speed? Anemometers are now low in price and can provide a more accurate assessment than the use of the Beaufort scale. Both the event organiser and the amusement site organiser, including ride operators, should check and be aware of any adverse weather predictions and work together with any planned contingencies for the event as a whole.

15.26 Inflatable devices should be erected, maintained and supervised by competent people. Further advice on safe use can be obtained from the National Association for Inflatable Hirers, or from the British Standard BS EN 14960.

15.27 The Register of Play Inspectors International (RPII) runs a training course and award for Operators and Attendants of Inflatable Play Equipment.

PLANNING FOR SAFETY

GENERAL CONSIDERATION

15.28 Effective organisation of amusement sites is essential if safety is to be properly managed and risks controlled. Discuss arrangements for amusement sites with the appropriate authorities and emergency services at the planning stage and consider their advice and comments. In some circumstances, this contact may be through a local authority safety advisory group (SAG).

15.29 Safety measures within the amusement site should be drawn up in such a way that they interact effectively with those of the overall event.

LAYOUT OF AMUSEMENTS AND ATTRACTIONS

15.30 The amusement site organiser should plan the layout of attractions and amusements so that:

risks arising from the site, such as uneven or soft ground, wind uplifts, fixed structures or overhead power lines, are eliminated or minimised;

there are no points where channelling the public could lead to dangerous overcrowding in an emergency. Extra space may be needed around popular attractions;

there is sufficient space to allow easy access for emergency vehicles (including access to a water supply) and space for them to work. Remember that this may have to take place at the same time that the public are being evacuated. Access routes will need to be able to cope with people with disabilities and families with children and pushchairs etc.;

there are identified access routes that can take the weight of all vehicles. Remember that emergency vehicles and recovery equipment (e.g. cranes) may need to access to the site;

there are sufficient clearances between attractions and their fences, perimeter walls and external fences etc (this includes any barriers and waiting areas)

15.31 Take into account:

the numbers of people on the amusement and attractions site at peak times;

the motion-clearance envelopes of separate rides to ensure safe separation distances between them and passer-by/spectators while the machines are running. People should be able to move freely without coming into contact with moving parts of machines. This also applies to coin-operated rides, which can vary from simple miniature train rides to more complex machines with significant movement envelopes;

sufficient space is given to rides, so any ride theming and fences can be positioned safely out of reach of riders

15.32 The event organiser should obtain relevant information on underground services from the landlord, site owner and the local utility suppliers and this should be passed on to the amusement site organiser who should, in turn, pass it to ride controllers.

15.33 The amusement and attraction site should be planned to minimise the need for poles or pegs to be placed near such underground services, and to prevent heavy structures being placed on weak ground or above voids. Use cable-locating techniques before any excavating is done. Further information is given in HSEs Avoiding danger from underground services (HSG47).

15.34 The same general advice applies to overhead power lines. Event organisers should make sure controllers are aware of these and that they take relevant precautions. Further advice is available in HSEs guidance note Avoidance of danger from overhead electric power lines (GS6).

NB: See **Chapter 3** Venue and Site Design, and Electrical and Lighting.

15.35 Plan the routes and arrival/departure times of the attractions. This minimises ground damage and the risks to people passing through the area during build-up and pull-down. These phases will involve significant vehicle movement and, wherever possible, unauthorised access should be restricted during these times.

EMERGENCY PLAN

15.36 An amusement and attractions site should also be considered as part of the event emergency plan/s (see **Chapter 4** Major Incident Planning). For large fairgrounds and attraction sites, HSEs Fairgrounds and amusement parks: Guidance on safe practice (HSG175) provides some specific advice to help with emergency planning.

DOCUMENTATION

15.37 Fairground rides are required to undergo an annual inspection by a competent person to ensure they remain in a safe operating condition. Ride controllers will expect the event organiser or amusement site organiser to request proof that this has been done before they arrive on site (or at the latest before public operation if a test needs to be undertaken on site). With ADIPS, this takes the form of a certificate or the undertaking of an on-line check with the use of the device ADIPS ID number. A fairground ride or inflatable should not operate if it has not passed its annual inspection.

15.38 The Amusement Devices Inspection Procedures Scheme (ADIPS) is the industry operated ride inspection scheme. Managed by the ADSC, and administered by ADIPS Ltd., ADIPS requires inspection bodies to be independent and competent for the work they carry out as laid down in the ADIPS Inspection Scheme Document.

Every ride is issued with a Declaration of Operational Compliance (DOC) to prove that all relevant inspections have been satisfactorily completed and to confirm details have been entered onto the ADIPS Central Database of Amusement Devices. Each DOC has a unique reference number and can be verified at the website:

www.adipsonline.co.uk.

15.39 The inflatable device-only PIPA scheme is run by MUTA. PIPA-registered inspectors all have a qualification from the Register of Play Inspectors International (RPII) and test inflatable equipment against BS EN 14960. Every inflatable device that passes a test under the PIPA scheme is tagged and issued with a certificate. Information on each tagged inflatable device, including its current test status, is available to check on the PIPA website.

15.40 Check before the attractions start operating that all controllers have current and adequate levels of insurance, such as public and employers liability. Controllers can have multiple underwriters, as some organising bodies include certain levels of insurance in their membership.

MANAGING THE ATTRACTION ONSITE

15.41 To manage the amusement and attractions sites interaction with the overall event, organisers need to:

establish a robust means of communication with the amusement/fairground controllers;

identify, mark and deny access to areas prohibited to the public;

make sure that all safety checks are carried out at the start of each day before the public is admitted, and regularly thereafter;

ensure that operation of attractions is coordinated with the event to prevent crowd surges through the amusement site.

Monitoring the attraction site

15.42 To ensure safe conditions are maintained in and around the amusements and attractions site throughout the event, the amusement site organiser must:

monitor the safe operation of the site overall;

check for overcrowding and temporarily stop access to the fairground, or re-route the public, if necessary;

keep all routes, including emergency routes, clear and well signposted

monitor the condition of the site, particularly housekeeping, the state of the ground, and that waste paper and other flammable materials are not allowed to accumulate where they may be a source of danger;

check that the layout stays as planned, and emergency routes remain open;

monitor sound levels to ensure that noise from the attractions does not exceed any agreed limits and time constraints

OTHER ATTRACTIONS

15.43 New attractions come onto the market all the time with new safety risks. Organisers are also reminded to consider other types of attractions and their risk (e.g. bungee jumps, reverse bungee, euro bungee, and zorbing) www.ADIPS.co.uk may be able to give advice or guidance with any new fairground devices

THE USE OF WATER WITH ATTRACTIONS AND DEVICES

15.44 Risks associated with water such as drowning and water borne pathogens such as Legionella should also be risk assessed alongside the management of safe disinfection procedures. The HSE approved code of practice can be downloaded from this link. <http://www.hse.gov.uk/legionnaires/what-is.htm>

16. Waste Management

Details Last Updated: 25 September 2017



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

Failure to effectively manage waste at events presents direct and indirect risks to the health and safety of employees and those attending

Event organisers should continuously monitor the build-up of any waste (especially combustible materials) during the event and take necessary measures to remove it

Plan for the storage, handling and transport of general waste and sewage

Event organisers should assess the risks associated with generation, storage, handling and transport of waste, and take appropriate precautions

Ensure that contractors appointed to handle, remove and dispose of waste are competent and licensed

Contractors should assess and manage the risks associated with their activities

Event organisers and contractors may have duties under environmental protection legislation enforced by the Environment Agency and Scottish Environment Protection Agency

16.1 Workers, the food and merchandising outlets, and the audience at most events will generate large quantities of waste materials. This chapter seeks to help organisers assess and manage risks associated with waste accumulation, collection and disposal.

16.2 Failure to properly manage waste may result in a risk to the health of workers handling waste, a risk of fire, compromise emergency escape routes and present health risks to those at the event.

LEGISLATION

16.3 Event organisers have a duty under the Health and Safety at Work etc Act 1974 (HSWA) to ensure, as far as is reasonably practicable, to safeguard the health and safety of their employees and others involved in the handling, storage, transport and disposal of waste.

Consider referencing:

<http://www.hse.gov.uk/event-safety/handling-waste.htm> and <http://www.hse.gov.uk/pubns/waste15.pdf>

PLANNING

16.4 Organisers should carefully plan for managing waste on site, whether they take primary control for waste management or engage the services of a contractor. Effective planning will involve discussions between organisers, site owners, including landowners, local authorities and contractors.

16.5 If contractors are engaged to handle, store or transport waste, they should be provided with sufficient information to ensure this is done properly including:

- audience size
- numbers of toilets
- number of food outlets and similar facilities
- site plans
- site rules for transport movements
- range of likely types of waste to be managed

16.6 There is specific legislation on waste management aimed at protecting the public and the environment. The Environment Agency (EA) in England and Wales and the Scottish Environment Protection Agency (SEPA) in Scotland enforce this. Further guidance can be obtained from the EA, SEPA or a competent waste contractor.

<http://www.environment-agency.gov.uk/business/topics/waste/default.aspx>

<http://www.sepa.org.uk/waste.aspx>

TYPES OF WASTE AT AN EVENT

16.7 Types of waste generated include the following:

- liquid waste, i.e. sewage from sanitary facilities and food outlets
- waste water from toilets, showers and hand-washing basins
- sanitary/medical waste, including sanitary towels and tampons, at toilet facilities; syringes, needles and bandages from First Aid posts and nappies from changing rooms
- organic waste, such as catering waste, leftover food from concessions, cooking oil and residues, and liquid food waste
- grounds maintenance waste
- metal waste, e.g. construction/demolition materials
- residual waste, such as food and drink-contaminated packaging, unrecyclable materials, composite packaging, cigarettes, paper tissue, etc
- clothing and textiles
- recyclable waste, such as paper and cardboard packaging, glass, metal packaging (cans), plastic bottles
- human waste products (vomit, urine and faeces) either at toilet facilities or deposited on site in or outside of receptacles
- animal waste, primarily faeces but also clippings, feathers, and animal bedding which is usually contaminated with urine and faeces
- hazardous and special waste, e.g. fireworks and pyrotechnics
- batteries, fluorescent tubes
- gas cylinders, broken equipment, unused paints, diesel/fuels

HAZARDS POSED BY WASTE

16.8 There are a number of hazards associated with poor management of waste:

- accumulations of waste blocking emergency access or escape routes hamper movement around the site, as well as presenting tripping hazards to the audience
- fire hazards when waste is accidentally or purposely ignited
- vehicle movements associated with the collection of waste materials

16.9 Other waste-specific hazards include:

injury to workers during handling of waste on site, e.g. needle stick injuries, back strains due to manual handling, and possible infection by pathogens, including Tetanus and Leptospirosis, E-Coli and Salmonella

the misuse of waste by the audience, e.g. throwing bottles and cans which is a public order matter covered by the Public Order Act and enforced by the police

waste attracting insects and vermin, and the consequent risks to health

risk of fire/explosion from gas cylinders



ASSESSING RISK AND PUTTING CONTROLS IN PLACE

16.10 Event organisers and/or their contractors must assess the risks posed by waste hazards and take action to control them. To assist in this, the remainder of this chapter highlights points to consider.

THE COLLECTION AND HANDLING OF WASTE ON SITE

16.11 The method of collections and safe handling of waste on site will depend on a number of factors, including the type and volume of waste expected, plus how, when and where it will be collected and then finally removed.

16.12 Waste and the type of waste products will not be generated evenly across the venue or site. The build-up of waste will vary in different areas over time. An organiser/waste contractor will therefore need to manage their workers and equipment to ensure that there are adequate resources directed to the most appropriate areas at the relevant times. Each area of the venue or site may need to be managed differently.

Pay special attention to the following areas:

- entrances and exits
- arenas and stages
- sanitary areas
- animal areas
- first-aid areas and health-care waste
- catering areas
- camping areas

METHODS OF COLLECTION

16.13 The collection of waste from the site or arena usually involves a combination of the following:

- the use of sweeper vehicles and vacuum suction vehicles
- vacuum tankers for collection of wastewater temporarily held in smaller tanks, e.g. temporary toilets

other vehicles, trailers and towing vehicles for transport to waste storage area/collection point
compaction refuse-collection vehicles
skip vehicles
tractor or forklift mounted grabs and forks
standard HGVs
workers specifically trained to pick the waste up (litter pickers), and/or empty the receptacles placed around the site or venue

16.14 Consider any special requirements regarding access or height restrictions and storage space for vehicles.

RECEPTACLES

16.15 Waste receptacles can be positioned around the perimeter of the venue or site, and they can also be located within the venue or site or other areas as appropriate. Great care must be exercised in choice, size and location of receptacles. Wheeled containers or similar receptacles are versatile, as they can be obtained in a variety of sizes and are equipped with lids. They can be positioned easily and manoeuvred as required. Also consider providing tamper-proof sharps bins.

16.16 Steel drums are difficult to manoeuvre and empty when full, so assess their use. Skips can also be used but again their positioning requires planning to ensure that there is suitable access for delivery and collection, especially in wet weather. Generally, position skips in areas separated from the audience. Waste receptacles can be set on fire, so they require regular monitoring.

16.17 Large on-site compactors can be used to reduce the bulk of the refuse. They will need to be plugged into a suitable three-phase electrical supply and a trained operative should be available at all times. Separate front-end-loader containers from the audience for reasons of safety, access for loading, and to prevent un-compactable, hazardous or other inappropriate waste being placed into these units.

RECYCLING

16.18 General waste from events is classed as commercial and industrial waste, to which the pre-treatment regulations (of the Landfill Directive) apply.

<http://www.environment-agency.gov.uk/business/topics/waste/32122.aspx>

This means if waste is disposed of to landfill, recycling is compulsory. Sorting on site is preferred to sorting after the event due to the poor results that this often provides. The pre-treatment regulations are assumed to have been complied with if waste is disposed of to non-landfill outlets, such as energy from waste.

In addition to this the [Waste Regulations \(England and Wales\) 2012](#) applied a requirement for any contractor that collects waste to separately collect paper/card, plastic, glass and metals where separate collection is necessary to ensure that the waste undergoes treatment for recovery or recycling.

The options for recycling on site include designated recycling containers.

16.19 These can either be small, wheeled containers, which are then collected to allow further sorting of the materials, or they can be larger banks, such as those provided by specialist contractors. The effectiveness of the segregation systems for recycling will be dependent upon the good will of the attendees to the event, and adequate provision of recycling containers that are clearly and unambiguously labelled (preferably with pictograms) and appropriately located. In order to prevent contamination of recyclable waste, the use of material-specific apertures should be considered so no other items can be deposited into the recycling container.

Consideration should be given to the possibility of composting organic waste on suitable sites.

Composting of animal wastes may be carried out at suitable facilities on or off site.

HANDLING WASTE

16.20 Organisers or contractors responsible for handling waste should take appropriate steps to manage the risk of employees sustaining injuries from manual handling operations. Where providing appropriate equipment or systems of work cannot prevent manual-handling risks, an assessment should be carried out that identifies control measures.

Further information on the controlling of these risks can be obtained from <http://www.hse.gov.uk/msd/risk.htm> which also provides tools for assessment. See Chapter 2 of the Purple Guide.

16.21 Staff must be competent to handle waste. Organisers and their waste contractors must provide them with suitable and sufficient instructions, training and supervision to allow the work to be carried out safely.

16.22 The Personal Protective Equipment Regulations 1992 also require an employer to ensure that their employees have suitable and sufficient protective clothing and equipment to carry out their tasks. The choice of protective clothing should be based on a risk assessment. Items should be appropriate for the task and fit the wearer.

16.23 Examples of suitable clothing for both contractors and others handling waste may include:

- protective gloves
- protective boots or shoes with metal toe caps
- protective overalls, trousers and jackets
- waterproof clothing
- high-visibility clothing
- protective eye wear

16.24 Those handling waste need access to hot and cold-running water, soap and nail brushes to wash their hands and bodies if they become contaminated. Washing facilities must be available, particularly at the final waste-collection process, and in some circumstances showers will be necessary.



REMOVAL OF WASTE FROM SITE

16.25 Organisers will have a duty of care under environmental legislation to ensure the safe removal and disposal of waste by registered contractors.

<http://www.environment-agency.gov.uk/business/topics/waste/default.aspx>

<http://www.sepa.org.uk/waste.aspx>

16.26 Waste contractors should be given information on the premises or site layout, including location of waste facilities and traffic routes, for removal of waste from site. There may be areas that are subject to a ban on vehicle movements during the event to protect the audience. The sites chosen for the bulk collection of waste must have a

suitable access route capable of taking the weight of often very large collection vehicles. These could weigh up to 38 tonnes.

16.27 Contractors should also be given a copy of the site safety rules and information concerning any significant risks highlighted in the event risk assessments.

16.28 It is important for organisers to appoint competent contractors. At the planning stage, organisers can check whether contractors have knowledge and experience of similar events, seek information on previous health and safety performance, and examine their safety policies, risk assessments and methods of working.

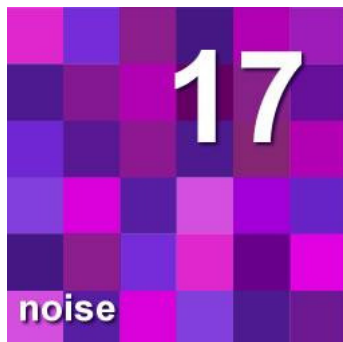
Organisers should obtain and keep a Waste Transfer Note collection note in respect of all waste removed from site.

TIMES OF COLLECTION

16.29 Discuss with the waste removal contractor/s the strategy for collection of the waste for the whole duration of the event, including pre and post-event collections. Different collection methods may need to be planned for each of these phases.

17. Noise

Details Last Updated: 07 June 2016



Please note: The information contained in this guide provides pointers to legislation and good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

Key Points

The Control of Noise at Work Regulations 2005 apply to exposure of all employees and contractors to loud music at events. Although volunteers are not covered by the Noise at Work Regulations, s3 Health & Safety at Work Act does apply to them.
The Health & Safety at Work etc. Act 1974 also applies to the exposure of the audience to loud music.
The risks to employees and others at work from exposure to noise should be assessed.
Exposure of employees and others to harmful noise levels should be reduced so far as is reasonably practical.
All those with duties to control exposure to noise should communicate and co-operate with each other to manage the risk. Everyone working at events needs to take personal responsibility for their own noise exposure and to take reasonable care not to damage their own hearing or that of other people.
There is a legal responsibility for personal hearing protection to be used in some areas if noise levels cannot be controlled at a safe level.
Many noise control measures are simple and cost-effective.
The audience can still enjoy the performance with these controls in place.

INTRODUCTION

17.1 Detailed guidance on noise in entertainment is available in the HSE publication HSG 260 'Sound advice: Control of noise at work in music and entertainment' and the associated HSE web pages at www.soundadvice.info. 'Sound Advice' was produced by a working group of industry stakeholders with support from the Health and Safety Executive. Amongst other things, this guidance contains practical advice on the control of noise in entertainment venues including concert halls, theatres and amplified live music venues.

17.2 There are also many construction related task at events, which are potential sources of high noise levels. Detailed guidance on related task can also be found by searching HSE's website at www.hse.gov.uk/construction

17.3 This chapter does not seek to replace existing guidance like 'Sound Advice', rather it seeks to complement it by summarising its simple, sensible and solution-based recommendations, which are aimed at helping employers meet the requirements of the Noise Regulations, the emphasis being on preventing irreversible hearing damage not enjoyment.

17.4 The Control of Noise at Work Regulations 2005 require employers to:

Assess the risks to employees from noise at work; (How to choose a competent person and how to carry out a noise assessment can be found in the HSE publication L108 Controlling Noise at Work).
 Take action at its source to reduce the noise;
 Provide employees with hearing protection if the noise exposure cannot be reduced enough by using other methods;
 Make sure the legal limits on noise exposure are not exceeded;
 Provide employees with information, instruction and training. It is important that employees understand that The Control of Noise at Work Regulations 2005 also apply to them;
 and
 Carry out health surveillance where there is a risk to health.

17.5 The Control of Noise at Work Regulations 2005 require employees to:

Make full and proper use of personal hearing protectors in identified areas; and
 Report any defects in any personal hearing protectors or other control measures as soon as is practicable.

Employers must take reasonable steps to ensure that employees meet their personal legal obligations.

17.6 While the Control of Noise at Work Regulations 2005 requires employers to take reasonable steps to protect their employees from noise that could damage their health, it does not directly applying to volunteers or spectators. However, the Regulations extend the general duties of set out in the Health and Safety at Work Act for organisers to safeguard the health and safety of people who are not employees, such as volunteers and members of the public.

17.7 It is also important that employers who engage volunteers and workers on a part-time basis work with them to ensure that their exposure to noise is properly managed. Where volunteers and part-time workers work alongside full-timers doing the same work, they should be subject to the same protective measures. Where it is known that part-time workers are exposed to noise during other employment, employers should consider the overall risks to those people in deciding how to protect their hearing, and not just look at their noise exposure during the specific periods when they are employed by them.

17.8 The Control of Noise at Work Regulations 2005 do not specifically apply to audiences at events or to the public. However, Section 3 of the Health & Safety at Work etc. Act 1974 places a duty on employers and the self-employed to conduct their undertakings in such a way as to ensure that – so far as is reasonably practicable – persons other than themselves or their employees are not exposed to health and safety risks, which includes damage to hearing. Event organisers should also bear in mind their civil law liabilities relating to negligence.

EXPOSURE LIMITS

17.9 The Control of Noise at Work Regulations 2005 require specific action to be taken at certain noise action values. These relate to the levels of exposure to noise of employees averaged over a working day or week and the maximum noise (peak sound pressure) to which employees are exposed in a working day.

The values are:

Lower exposure action values;

Daily noise exposure of 80 dBA; peak sound pressure of 135 dBC; Upper exposure action values;

Daily noise exposure of 85 dB; peak sound pressure of 137 dBC.

There are also levels of noise exposure which must not be exceeded:

Exposure limit values;

Daily noise exposure of 87 dBA; peak sound pressure of 140 dBC.

Exposure limit values take account of any reduction in exposure provided by hearing protection.

THE AUDIENCE

17.10 Although there are no specific legislative limits on the levels of noise audiences can be exposed to, event organisers nevertheless have a responsibility to protect the public from damage to their hearing. Surveys have indicated that over 80% of festival goers have experienced dullness of hearing/threshold shift or ringing in the ears. While much hearing damage is associated with prolonged and repeated exposure, damage can also be caused by a single loud noise. This can typically take the form of tinnitus, a condition which can cause immense and permanent suffering.

17.11 It is recommended that the average sound level for an event is measured as an Leq dB should not exceed 107 dB(A) and the peak sound pressure level should not exceed 140 dB. These exposure levels should be applied to the entire audience area and assessments should be made in locations adjacent to speakers systems. In practical terms, the Leq can rarely be measured for the entire duration of the event and if it is, by the time it has been exceeded it could be impossible to reduce the level to achieve the limit. So it is suggested that an Leq, 1min of 109 or 110 dBA is used as a surrogate (the choice being dependant on the duration of the event and the gaps between performances). Sample readings can be taken at suitable locations and used as a surrogate enabling adjustments to be made at an early stage of the event.

17.12 When considering the audience, factors such as overall noise level, speaker separation distances and the provision of quiet periods and chill-out areas should be considered. It may be appropriate to print warnings on tickets so that people are fully aware of the risks.

17.13 Where practicable, the audience should not be allowed within 3 metres of any loudspeaker of any significant size (e.g. an rms output above 1kW). Where this is not possible, measurements should be used to modify sound levels so that those closer than 3 metres are not exposed to an Event Leq of more than 107dBA or peak sound pressure level of more than 140dBC. Under no circumstances should members of the audience be allowed within 1 metre of such loudspeakers.

17.14 Where the Event Leq is likely to exceed 96dB (A), advice should be given to the audience of the risk to their hearing both in advance and during the event. This can be done in advance through tickets, the event website etc. and at the event through notices at entry points, articles in programmes etc. See <http://www.actiononhearingloss.org.uk/>

17.15 Event organisers should consider making appropriate hearing protection available to the audience (including children), particularly if the Event Leq is likely to exceed 96 dB(A). Noise nuisance

17.16 The Control of Noise at Work Regulations does not apply to low-level noise that is a nuisance but causes no risk of hearing damage. For the community impact of noise from events, many local authorities will have recommended noise control procedures for minimising noise in surrounding areas. For guidance on the control of environmental music noise and its impact on communities neighbouring events see the 'Noise Council Code of Practice on environmental noise at concerts, 1995 ISBN 0900103515. This can be found at

http://www.cieh.org/uploadedFiles/Core/Policy/Publications_and_information_services/Policy_publications/Publications/Noise%20Council%20Code%20on%20Noise%20Contr



NOISE ASSESSMENT

17.17 You can assume that if you are going to build a structure using power tools and have amplified music, you will have to take some kind of action to control risk. You do this by first undertaking a noise assessment (or series of assessments). The noise assessment will have to cover exposure during the show itself, sound tests, rehearsal and the use of power tools during the build and breakdown.

17.18 A noise risk assessment needs to be drawn up by someone who is competent to carry out the task and be based on advice and information from people who are competent to provide it. Noise risk assessments should:

identify where there may be a risk from noise and who is likely to be affected – this should take into account all those working on the site as well as the audience and the nearby community who may find the sound levels a nuisance;

contain a reliable estimate of the noise exposure and compare this with the exposure action and limit values;

identify what noise-control measures are needed and whether hearing protection is required and, if so, where and what type;

identify any employees who need to be provided with health surveillance and whether any are at particular risk.

17.19 The earlier noise is considered, the more effective and economic the control measures will be. For example, it is not sufficient to hand out earplugs to crew once the event is under way.

17.20 The degree of planning will vary according to the complexity of the event. When making an allowance for noise issues at the planning stage the following should be considered:

The choice of work equipment & its use during construction and deconstruction of the event site;

The music to be played and other sources of noise;

Which areas onsite are likely to present a risk for employees being exposed to noise levels in excess of the action values;

Who will be affected;

Separating performers and staff from the sound, for instance by limiting the number of staff in close proximity to high noise areas, or by reducing the time staff spend in these areas;

Expected sound levels and durations;

Selection of loudspeaker types and other equipment;

Potential control measures available;

The need to allow for sufficient rehearsal time to identify and control any unforeseen risks;

17.21 Sound levels often rise during an event to create impact or to emphasise leading performers. They may similarly rise towards the end of each set. Where this is likely to occur, the sound level for earlier performers should be set lower to allow for the likely increase so that the overall sound-level limits are not exceeded.

17.22 Event organisers should ensure that any requirements in band contracts do not exceed the noise level requirements permitted.

17.23 Larger venues may have a specific noise policy statement, which may help with planning. Venue managers in touring venues may have noise risk assessments which can help predict where people are at risk.

NOISE CONTROL MEASURES

17.24 There are a number of measures which event organisers and others can take to reduce exposure of employees and others to harmful noise levels.

AMPLIFIED MUSIC

17.25 Those controls associated with amplified music are fully explored in HSG (G)20 Sound Advice and summarised here. The need for musicians to hear their own performance and that of other performers is fundamental, but this can lead to an excessively loud and confusing stage environment if not planned and managed correctly. A well-balanced monitor system should allow all the players to hear what they need at a comfortable level while maintaining a reasonable work environment for everyone else on the stage. On a noisy stage it is very seldom the answer to turn something up to make it clearer. Consider the following;

Plan the stage layout to avoid the need for noise competition between monitor mixes and other noise sources;

Plan site layout so that services are not positioned in very noisy areas e.g. first aid, information point etc.;

Turn down the overall level and make adjustments in the balance;

Position speakers to provide effective listening levels to the performer(s) concerned without causing excessive spill;

Avoid monitor spill by using monitor headphones or in-ear monitors (IEMs);

Note: For further more detailed advice on noise during the build-up and breakdown of an event, go to <http://www.hse.gov.uk/construction/healthrisks/managingnoise.pdf>

HEARING PROTECTION (HP)

17.26 Employers must provide employees with personal hearing protection and should make sure that they are used properly when their noise exposure exceeds the upper exposure action values;

17.27 Employers must provide personal hearing protection for employees to use if the noise exposure is between the lower and upper exposure action values.

17.28 The main types of personal hearing protection (PHP) are:

Earmuffs, which completely cover the ear;

Earplugs, which are inserted in the ear canal; and

Semi-inserts (also called 'canal caps'), which cover the entrance to the ear canal.

17.29 The noise assessment should be used to assess the best type of PHP with the aim of getting below 85 dB at the ear. However, care should be taken to make sure that it does not over-protect and isolate the wearer from the environment. Ensure that selected hearing protection is suitable for the employees' working environment and is compatible with other protective equipment used by the employee (e.g. hard hats, dust mask, eye protection).

17.30. The kind of noise produced at events is very variable. Depending on the phase of the event cycle, noise may be produced by construction work. During the public phase, concert PA system and generators are likely to be the sources. There will be huge variations in not just overall level, but in the component frequencies which make up the sound. Different PHP may be required for noise protection during the build and the show itself.

17.31 Effective PHP needs to absorb enough of the incoming energy to protect the ear, but it needs to target the frequencies which are most prominent and which contribute most to the overall energy of the sound. Simply getting HP with a high overall attenuation rating (the SNR@define@value) is not necessarily the best approach.

17.32 A suitable and sufficient noise risk assessment needs to go into this level of detail to ensure appropriate PHP is specified.

MANAGING USE OF PHP

17.33 The level of noise in some areas may be such that people receive personal noise exposure above established safe levels in a very short period of time (less than a minute). Therefore, consistent and proper use of HP throughout the exposure period is vital.

17.34 In order to be accepted and implemented, workers need to understand the reason behind HP and the basics of how to fit and use it. It is just as important to have HP that fit correctly and are comfortable as well as the attenuation values discussed above. If the protection provided is bulky or uncomfortable, or it gets in the way of people carrying out normal duties, it is likely to be ignored or removed on a regular basis.

17.35 Overprotection should also be avoided. Bar and concession staff need to communicate clearly with customers, and providing excessively attenuating HP may appear to "err on the safe side", but may mean staff remove the plugs every time they speak to a customer – meaning that they are unprotected.

17.36 Workers should be offered a choice of HP, so they can decide which is the most comfortable and usable. They must also be shown how to wear or insert it and to recognise when they are improperly fitted or should be replaced.

17.37 In complex environments where many subcontractors operate, it will normally fall to the event organiser to implement a system for the enforcement of HP use amongst contractors and suppliers – whether they are carrying out technical operations on the stage or working in retail units. Such a requirement does not override the primary duty of the employer to conduct a risk assessment and make suitable provision for their staff; however, the Organiser does have a duty to ensure that all contractors and third parties are properly warned of the extent and nature of the noise hazard onsite.

17.38 In some instances, noise maps may be appropriate to give an indication of the areas of site where noise levels can be expected to be below exposure action or limit values. Measurements should be carried out to verify any assumptions made and amendments made to the management plan. Such a plan will clearly identify mandatory Hearing Protection Zones.

ENSURING COMPLIANCE WITH THE REGULATIONS

17.39 Everyone involved has a responsibility to help with noise management: from the promoter or venue operator through to performers, technicians, bar staff, stewards and DJs. The normal arrangements of employer/employee can be difficult to determine and often vary with each event. Add to this the large number of self-employed people working as performers, sound engineers or technical crew and the picture can become very complicated.

17.40 Because of these complexities, everyone working at events needs to take personal responsibility to think about their own noise exposure and take reasonable care not to damage their own hearing or that of other people. Simply relying on an overall 'employer' may not always be the most effective approach. It is important that the people who can most readily control sound levels, such as conductors, musical directors, sound engineers and sound technicians, recognise their responsibility for providing a safe workplace.

17.41 Employers should exchange information and collaborate to ensure that they fulfil their legal duties without unnecessary duplication.

17.42 It is sometimes helpful for organisers to consider producing a Noise Management Plan, which outlines the key findings of the event noise risk assessments and explains how a comprehensive strategy to reduce noise and protect workers will be implemented.

MONITORING

17.43 Regular review is important to make sure that all the controls are still working.

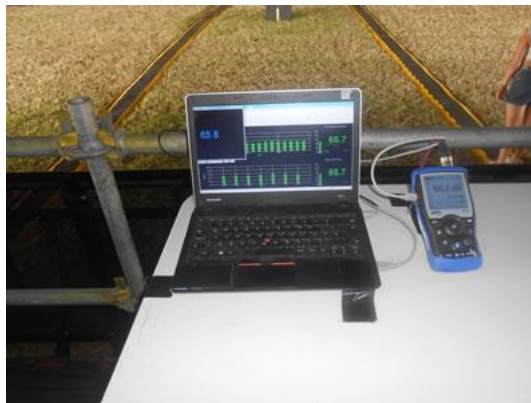
17.44 Organisers and their contractors (and sub-contractors) may take many steps to improve noise control. To make sure those actions are still effective the following action is required:

Ensure that performers and crew understand why they need to follow instructions on control measures. Provide additional training or team talks if necessary;
 Ensure that those who need to use hearing protection are doing so correctly and consistently;
 Review the results of hearing health checks to see how well the noise controls are working;
 Review the actions taken;
 Regular spot checks of noise levels can help to monitor how well controls are working.

17.45 Monitoring can be continuous or for a succession of short or sample periods (e.g. up to 15 minutes) to enable the overall noise levels to be established.

17.46 Noise levels for the audience should be checked at head height in the loudest part of the arena, usually at the front-of-stage barrier.

17.47 The nominated person responsible for sound levels at the event must have the authority to get sound engineers to adjust noise levels exceed the relevant limits.



HEALTH SURVEILLANCE

17.48 Employers must provide health surveillance involving hearing checks for all employees who are likely to be frequently exposed at or above either upper exposure action value, or are at risk for any other reason, for example, they already suffer from hearing loss or are particularly sensitive to damage. It is not a suitable substitute for controlling risk at source. The purpose of health surveillance is to:

Identify when employees are showing early signs of hearing damage;
 Provide an opportunity to do something to prevent the damage getting worse;
 Check whether control measures are working;
 Using contracts to help with noise control.

17.49 Contracts can help the planning process by setting out the arrangements for noise control. They have been found particularly helpful where there are several contractors working together with a producer/venue provider(s). Contracts can be useful when dealing with the specific requirements of The Control of Noise at Work Regulations 2005 and can form part of the overall health and safety considerations for the event/production.

17.50 A contractual approach is often more readily understood by the parties concerned as so many matters are already covered in this way - from performers' riders to equipment specifications. The contractual approach can also act as an aide-memoire. Experience shows joint meetings can often slip by because of time constraints, whereas specified contractual obligations for consultation are usually taken on board.

17.51 Including requirements in a contract can help principal contractors/producers to pass on relevant information to subcontractors. For example, a contract stipulating a hearing protection zone could insist that subcontractors' crews wear earmuffs.

17.52 The roles of different professionals in achieving effective noise-control measures should be clearly set out. This may be most successfully accomplished by inclusion in a contract, either within the main document or as appendices. Central to this process are professionals such as sound engineers, DJs, conductors and musical directors. The extent of their responsibilities should be clearly specified. Designated responsibilities should be appropriate to their training and experience.

17.53 For smaller-scale events, contracts may be the most direct way of ensuring noise-control issues are considered. Key points can easily form part of a standard contract for musicians. These may be of most help to those with individual contractual arrangements, particularly for short hire periods. Similarly, venue operators can include some

standard points relating to their requirements from performers - for example which instruments and equipment will be brought to the performance by the performers and what, if any, control measures will be carried out by them.

17.54 In small venues a contract should help remove grey areas about who would do what and identifying what needs to be done by laying down responsibilities early on (apart from the non-transferable legal responsibilities).

17.55 To view the case study displaying the problems of high noise levels to staff at a major music festival, [click here](#).

18. Sanitation

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

Event organisers must provide suitable and sufficient sanitary and welfare facilities for workers at an event

Responsible organisers will provide appropriate sanitary and welfare facilities for the audience

Provision of welfare facilities for the audience has positive benefits in controlling health risks and contributing to audience wellbeing and behaviour

Licensing legislation enforced by Local Authorities may require provision of sanitary and welfare facilities for those attending

18.1 As part of event planning, organisers will need to consider welfare and sanitary provision for workers. In terms of protecting public health, organisers will also have to think about welfare and sanitary provision for those expected to attend the event.

LEGISLATION

18.2 The Workplace (Health, Safety, and Welfare) Regulations 1992 require that suitable and sufficient toilets and welfare facilities must be provided for employees at workplaces.

18.3 It is likely that separate facilities will have to be provided for food handlers (catering staff) under public entertainment licensing. For further information, see Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs.

18.4 There is no direct legal requirement under the Health and Safety at Work etc Act 1974 (HSWA) to provide toilets and wash facilities for non-employees. Similarly, health and safety law does not prescribe numbers and types of toilets and wash facilities for use by an audience. However, supply of adequate toilet and washing facilities is important in the prevention of health risks. Lack of sufficient provision may also result in crowd disorder.

18.5 The Equality Act 2010 will apply with regard to sanitary accommodation for people with special needs.

<https://www.gov.uk/equality-act-2010-guidance>

18.6 The provision of a healthy drinking-water supply for the audience is primarily governed by legislation enforced by the Drinking Water Inspectorate (DWI). See Chapter 21 - Food, Drink and Water

18.7 In all circumstances, the scale of welfare facilities required will depend on the nature of the event, worker and audience profile, and the type of venue.

WELFARE FOR WORKERS

18.8 Guidance on welfare facilities for workers, including the number and type of toilets and wash facilities, is in the accompanying code of practice to the Workplace (Health, Safety, and Welfare) Regulations

1992. <http://www.legislation.gov.uk/ukxi/1992/3004/contents/made>

Further guidance on the provision of welfare facilities during construction work is in the Health and Safety Executives (HSE) Construction Information Sheet 59 and BS 6465-1:2006. <http://www.hse.gov.uk/pubns/cis59.pdf>

WELFARE FOR THE AUDIENCE

18.9 Consider the number and type of toilets and washing facilities as part of an assessment of needs. Key factors to take into account include: audience size and demographics, e.g. provision of suitable facilities for children, elderly or disabled and wheelchair users attending, who may take longer to use a facility

duration of the event

location of the event and type of venue, e.g. a stadium or greenfield site.

type of facilities available, e.g. cubicles or urinals

frequency of emptying temporary toilets

access to mains services temporary or otherwise

perceived audience food and fluid consumption

requirements during intervals and breaks in performance when use may peak

requirements for campsites

weather conditions and temperature

plus any other factors relevant to the event

18.10 Ground conditions must be considered for allowing vehicle access to both public and workers sanitation points. By nature, tanker lorries are large and very heavy when full, but are imperative where facilities are not connected to mains water or drainage.

18.11 By examining the factors above, it should be possible to determine what level of facilities will be required to reduce the likelihood of excessive queuing. Rapid and constant use of facilities can lead to overcrowding, possible disorder and unhealthy conditions.



TEMPORARY TOILETS

18.12 There are a number of different types of temporary toilets available for hire, from cubicles to urinals. The risk assessment should help to identify the type of temporary toilets suitable for the event.

18.13 Consider the perceived peak usage of any toilet units and the time taken for cisterns to fill. Rapid and constant use of any toilet can cause the bowls to become unsanitary and prone to blockages.

18.14 Temporary mains units can be used if a sewer, drain, septic tank, or cesspool is available, provided an adequate water supply and sufficient water pressure are available. Recirculating self-contained units are not reliant on the availability of drains or water services.

18.15 Single self-contained portable units are versatile but are limited to a maximum number of uses before requiring servicing/emptying. Trenches and latrines may be appropriate for some events. Advice should be sought from the Environment Agency, or Scottish Environmental Protection Agency, and Local Authority regarding the suitability of trenches and latrines for each event, and for any local guidelines ensuring safe and hygienic use.

<http://www.environment-agency.gov.uk/>

<http://www.sepa.org.uk/>

18.16 Wherever non-mains units are used, provision for safe and hygienic waste removal should be arranged with holding-tank facilities, if required.

NB: See The Purple Guides [Chapter 16](#) on Waste Management for further details.

NUMBER OF TEMPORARY TOILETS FOR THE AUDIENCE

18.17 Organisers need to know the audience size and likely male to female ratio when determining the number of toilets required for an event. When there is insufficient information to assess this ratio, a split of male to female 50:50 should be assumed.

18.18 With regards to numbers, event organisers have used the information shown in Table 1 to inform their decision-making process. However, an event-specific assessment of needs will determine whether additional or a different balance of facilities is required, for example, an organisation may decide to provide female and male urinals in addition to the traditional cubicles for greater speed of use and a reduction in the length of queues.

18.19 Events where campsites are provided have differing requirements on ratios of urinals and WCs. Table 1 takes this into account.

18.20 A number of events are now using urinals for both males and females. Female urinals can increase throughput and reduce queuing at temporary toilets but have not yet gained widespread public approval. Organisers may wish to consider these where the age and profile of the audience makes it appropriate to include them. However, care should be taken to ensure that there are an adequate number of traditional female WCs to cover those who do not find these systems acceptable.

The table below provides guidance on sanitation provision at a variety of event types and is based on practical experience. Consideration should also be given to the legal and safe disposal of effluent.

	Female Toilets	Male Toilets
For events with a gate time of less than 6-hours duration opening	1 per 100	1 per 500, plus 1 urinal per 150
For events with a gate opening time of 6 hours or more, but	1 per 85	1 per 425, plus 1 urinal per 125

with little or no alcohol or food served		
For events with a gate opening time of 6 hours or more, with alcohol and food served in quantity	1 per 75	1 per 400, plus 1 urinal per 100
For campsites at major events, swapping the emphasis from urinal to WCs for males	1 per 75	1 per 150, plus 1 urinal per 250

Table 1: Guide to provision of toilet facilities

18.21 Further guidance on sanitary installations can be found in [BS64651:2006 Sanitary installations. Code of practice for the design of sanitary facilities and scales of provision of sanitary and associated appliances.](#)

WASH FACILITIES FOR THE AUDIENCE

18.22 Hand wash basins can cause similar or even greater queuing than for WCs, especially for female toilets. Where possible, provide hand-washing facilities in the ratio of one hand wash basin per two toilets for females, one hand wash per four toilets for males, applicable in installations of mains connected toilet facilities. However for single plastic toilet installations then hand-washing facilities should be provided normally in the ratio of one hand wash basin per five facilities (WCs & Urinals) with not less than one hand-washing facility per ten toilets provided.

Consideration should be given to providing lower height wash basins where wheelchair users and/or a significant number of children are expected to attend the event.

18.23 Preference should always be given to providing warm-water hand-washing facilities and adequate supplies of suitable soap. This is the most effective means for cleaning hands. Antiseptic hand wipes or bactericidal soap/gel can be provided, however organisers should be aware that these wipes may only be effective when hands are not visibly contaminated (for example, by mud).

18.24 Hand-washing facilities alone may not provide adequate provision for events longer than one day, or when overnight camping is available. In these instances, consider whether it is appropriate to supply shower facilities on site, subject to the availability of an adequate supply of fresh water supply and sufficient water pressure. In some instances it may be appropriate to provide hand washing and / or showers even if the event is short in duration.

Alcohol and other gels and wipes must not be used where there is a risk of contamination by E.Coli 0157 only thorough washing is appropriate.



LOCATION OF TOILETS AND WASH FACILITIES

18.25 Sanitary accommodation for use by event workers should be located near to the work areas and, in particular, behind the stage, near the mixer tower, next to the catering areas and car parks, adjacent to the first-aid areas, and to welfare and childrens areas.

Hand washing facilities should be located at a suitable distance from food handling areas.

18.26 Where possible, locate toilets for the audience at different points around the venue rather than concentrating in one small area, to minimise queuing, which could lead to overcrowding problems. However, also consider ease of access for janitorial and waste-removal personnel and vehicles, which are essential to maintaining sanitary and hygienic facilities.

An assessment of needs should identify what sanitation facilities for the disabled and wheelchair users are required.

18.27 On sites where hand-washing facilities are supplied in the open air, consider the management of the facility to ensure that the surrounding ground does not become waterlogged, leading to localised flooding and the risk of slipping.

Special consideration should be given to safe access to washing facilities for the disabled and wheelchair users.

18.28 For those queuing to enter the event, consider placing toilets outside the perimeter of the venue (e.g. car parks, box-office queuing areas, event campsites, etc). Where necessary, consider access requirements for servicing and emptying. This may include the need for temporary roadways and dedicated access routes, subject to the layout of the site.

INSTALLATION AND MAINTENANCE OF TOILET AND WASH FACILITIES

18.29 Event organisers should ensure that they and/or their contractors have assessed any risk to workers. Consider workplace transport, lifting operations and manual-handling risks when moving temporary units.

18.30 Contractors and others involved in working with sanitary facilities should carry out an assessment of the risks to the health of their employees and others from exposure to hazardous chemicals and sewage under the **Control of Substances Hazardous to Health Regulations (COSHH) 2002**. Assessments should be made available to employees and should identify the measures in place to prevent, or where this is not reasonably practicable, control these risks. Control measures may include:

- substitution with safer products
- properly selected and maintained equipment

safe methods of work
provision of protective equipment
training
suitable information and warnings

NB: For health hazards posed by effluent during servicing and emptying of facilities, see The Purple Guides chapter 16 on Waste Management.



19. Campsites

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

Ensure an adequate provision of services for the entire duration of the camping event

Separation of the site into smaller areas will make it more manageable

Audience profile will help determine site density

Contingency plans should include providing shelter for campers whose tents are unusable due to adverse conditions or events

All aspects of fire safety and public health issues, as identified by the risk assessment, should be carefully considered

19.1 At many events, camping is no longer incidental and an alternative to other accommodation it is an integral part of the event. Camping should be provided within the defined event site and included in the event planning process. Emphasis needs to be placed on proper planning to ensure that an adequate level of services and facilities are available for the whole duration of the camping event and not merely during the licensed period of entertainment. Procedures for evacuation of campsites should be included within the event emergency/evacuation plans.

19.2 In isolated locations or where the music starts early or finishes late, contingency provision may have to be made for camping even when people were not intended to camp. Some consideration may also have to be given to crew camping and camping for stallholders with their stalls.

19.3 Services provided for people camping, including fire, stewarding, medical facilities, water supply, etc. need to be available for the length of time that campers are allowed on the site. Ensure your event publicity states the opening and closing times of the campsite. If large numbers of campers are likely to remain after the event, consider a gradual closing of the site to encourage those people to move, but without exposing them to risk.

SITE DESIGN

19.4 The camping area will need to be reasonably well drained and level, with grass cut short and dry grass cuttings removed to minimise the risk of fire spread. Camping should not be allowed on stubble. Break the camping areas up into discrete smaller areas to:

- provide an identifiable area for campers
- allow for the management of each area
- control the densities of each area
- enable provision of information and communications

19.5 Music events involving camping are likely to attract a broad mix of people and it might be desirable to create a separate area for family camping. Division of areas can be carried out by simple measures, such as lanes marked out with posts and tape or painted lines. At larger events, it may be necessary to provide some physical barrier to prevent camping, such as metal trackways and ballasted roads. Wherever possible, the layout of the site should provide for an entertainment area in the middle of the site, with camping on the periphery and parking beyond that. Crowd movements will therefore disperse away from the focus of the event. It is important that campsite layout plans are fully integrated between the various agencies involved, so that the site features and descriptions of locations will be identical for all the agencies.

19.6 Site arrangements and boundaries need to take account of natural hazards, such as ponds, ditches and rivers. Other hazards may need to be assessed to prevent access or risk of shock, e.g. electricity pylons pose a danger for activities such as kite flying and for the use of tethered commercial balloons.

SITE DENSITIES

19.7 A risk assessment approach should be taken to camping densities, and density will depend on a number of factors such as:

- the use of fire towers
- number, width and positioning of fire lanes
- regularity of campsite steward patrols
- camper profile
- whether the erection of gazebos is permitted at the event
- availability of on-site fire-fighting provision, such as a mobile 4x4 fire-fighting unit able to carry large quantities of water

This is a requirement under fire safety legislation and not the Health and Safety at Work Act

19.8 Experience has shown, a density of 476 to 543 tents per hectare, with a predicted occupancy of 2 to 2.4 people per tent for general camping fields at rock/pop events is a realistic standard. In a more family-orientated campsite i.e. larger tents with greater number of occupants, this density would need to be reduced, possibly by as much as 50%. Land used within the campsite for access tracks, facilities, maintenance, entertainment, unusable space and storage should be factored into the planned size and subtracted from the space available for camping. Camping areas for people with disabilities should also be considered. These may require more space, using larger tents.

19.9 Provide separation distances between individual tents to make the site safer from fire and trip hazards. Supply people entering the site with information and maps showing the camping areas and ensure there are sufficient stewards to direct people to the appropriate areas as the campsite fills up.



SEGREGATION OF VEHICLES/LIVE-IN VEHICLES

19.10 It is desirable to physically separate camping areas from vehicle parking areas. The reasons for this are to remove risks from:

- cruising or joyriding
- car fires
- runaway vehicles

19.11 Try to minimise the distance between car parks and campsite. Consider providing internal transport for campers to and from the campsite and allocating family and disabled parking near to their respective camping fields. This is particularly important for families with children (who need to carry considerable amounts of equipment), and for attendees with reduced mobility or in wheelchairs. Examine ways to lessen the burden of carrying camping equipment e.g. a deposit scheme for the use of trolleys, and the provision of shuttle buses and flat-back golf buggies.

19.12 It may be justifiable to permit parking with camping in certain circumstances on a level site and where the audience are compliant e.g. families. Where there is a desire to allow camping and car parking next to each other, the density will need to be substantially reduced to allow for increased roads and separation. Particular attention will need to be paid to designing the campsite in advance so that blockages of tents and cars cannot happen. It may be acceptable to allow vehicles and tents to mix in an area provided for disabled campers. In this case, every parking space should be marked out and possibly laid out back to back with fire lanes on each side. Rules concerning the movement of vehicles and movement curfew times should be communicated to these campers in advance and enforced on site.

19.13 If live-in vehicles e.g. dormobiles, camper vans, caravans or adapted vehicles are to be allowed on site, set aside a special area for this purpose. Such vehicles should not be used for camping in a parking area. Allocating pitches for live-in vehicles is desirable, and areas of 7 x 7 metres or 6 x 8 metres are sufficient. Consider requesting information about their size prior to arrival in order to ensure pitches are big enough. Larger vehicles may require two pitches. Consider limiting the amount of wristbands available for live-in vehicle pitches in order to prevent additional tents being erected adjacent to each vehicle.

INFORMATION, ORGANISATION AND SUPERVISION

19.14 Include information on the ticket about site restrictions, such as no unauthorised PAs, campfires, etc. Provide notices at strategic points on the site (including the campsites), particularly a You are here map and key information to direct people to important facilities, such as toilets, water, medical facilities and fire points. Make information, including site safety and restrictions, easily available (in the case of a large event this could be by way

of a dispersed 24-hour warden service). Ensure the warden service has radio communication and is able to respond to information requests from the public about emergency situations involving individuals health, fires, etc.

19.15 By breaking up the camping area into smaller discrete areas, people can be given an identifiable camping area to which they can more easily return. On complex sites involving many camping areas and a large entertainment area, provide all campers with maps on entry and/or preferably an information pack with safety advice.

19.16 Before campers arrive, locate stewards within the camping areas to assist with the general build-up of the campsite and to monitor key facilities such as toilets, fire provision and water supply. These stewards will also have a role in helping to ensure that camping is dispersed in the best way over the designated areas.

CONTINGENCY PLANNING

19.17 Aspects of contingency planning that require particular attention where there is camping on site include:

- adverse weather
- failure of water supply
- a need to clear the area

19.18 Campers may find that their tent is unusable or has been stolen. Therefore, contingency provision will have to be made for them to obtain shelter.

19.20 If temporary accommodation needs to be provided, existing marquees and tents may be suitable. In the case of adverse weather conditions, particularly wet weather combined with high winds, such structures may not be stable. A source of smaller tents may therefore be advisable to provide emergency accommodation.

19.21 At large events where people arrive in significant numbers by public transport, it may be impossible to close the event and clear the camping area in an emergency. Facilities will have to be brought to the camping areas rather than the people removed to another place of safety.

PUBLIC HEALTH

19.22 Provide advice to individuals on basic personal hygiene matters and the sort of food that they should or should not bring with them. Given the greenfield nature of a camping area, large numbers of people involved, basic sanitation and remoteness from care, it is essential to ensure that food outlets and personal hygiene are satisfactory. The consequences of an infectious disease outbreak would be significant in terms of both the numbers that could be involved and the amount of care that could be provided. Arrange adequate catering facilities (some overnight) and outlets where campers can buy basic provisions such as bread, vegetables and milk.

19.23 Sites that are grazed will naturally be contaminated with animal droppings and may expose campers to health risks, such as E. coli 0157 infection. Exclude animals from all areas other than car parks for at least 4 weeks before public access. E. coli 0157 can survive for long periods in the environment.

19.24 Animals, and in particular dogs, should not be permitted on the site and advance publicity of this should be given. Unnecessary health risks include fouling and dog bites, and stray dogs pose a nuisance. Notwithstanding any advance publicity, it is possible that people will bring dogs, in which case provision should be made to deal with strays. Assistance dogs should be permitted.



CRIME

19.25 Campers are vulnerable to having property stolen from tents but may be unable to carry around susceptible items. Consider providing secure accommodation where people can leave bulky or valuable items.

19.26 Campsites should be adequately lit and patrolled by stewards to deter both isolated and organised criminal activity. Patrols will also help to identify other matters, such as fire outbreaks or campfires getting out of control.

FIRE SAFETY

19.27 Campfires, barbecues and camping gas stoves present a risk of burns, tent fires, Carbon Monoxide poisoning and may cause smoke pollution. Spontaneous campfires are undesirable and, wherever possible, should be discouraged. At some types of event, however, it would be impossible to prohibit fires and, for certain audience profiles, more regulated (communal) fires are unlikely to be an attractive option. Consider providing purpose-built fire pits. Where fires are allowed, think about whether firewood could be provided to avoid destruction of trees/hedges and the burning of plastics and other material that could produce noxious fumes. Issue campers with information on how to safely store and change gas cylinders and use camping gas stoves and barbecues, and ensure they are aware of the potential for Carbon Monoxide poisoning if used inside the tents. Barbecues and camping gas stoves should never be used to heat a tent.

19.28 Consider the hazards of campfires in the event risk assessment, to include the following:

suitably trained stewards or fire marshals

fire points as a minimum these should consist of supplies of water, buckets and instructions telling the public what to do in the event of a fire, although these are of limited use in a tent fire

watchtowers consisting of raised platforms staffed by stewards with radios, which are a more effective means of observing for uncontrolled fires and suspicious behaviour

fire extinguishers and, depending on the scale of the event, an on-site capability to attend to fires with specialised vehicles

the fire points themselves becoming a hazard due to rubbish accumulation, etc.

SITE SERVICES

19.29 Ensure that facilities are maintained throughout the site 24 hours a day, and services are provided for the duration that people are actually on site. Consider providing additional facilities on entrances to the campsites where people may be queuing for long periods of time on entry. All facilities must be lit at night.

19.30 Additional site services may also include:

lost children point

24-hour campsite office
24-hour first aid
24-hour welfare point, which can also assist with lost property, phone charging etc.
showers

FIRST AID

19.31 See [Chapter 5](#) Medical. At camping events that run over several days, it will be insufficient to provide only first-aid, additional medical resources should be considered. Expect the demands that would be placed on a GP practice serving a community of similar size. Routine medical supplies, therapeutic drugs, etc, may need to be provided, including pharmacy facilities, dentistry and psychiatric facilities.

WELFARE

19.32 See [Chapter 20](#) on Welfare. In addition, it is possible that there will be a number of children present on site and facilities will have to be provided, including potentially accommodating children overnight. Communications and availability of information on lost children, lost friends, etc, must be established (see [Chapter 22](#) on Safeguarding Young People).

TELEPHONES

19.33 Provide telephones in suitable numbers and ensure they are easily accessible, well signed and available 24 hours a day to cater for the demand from individuals to contact parents, friends, etc. Consider the provision of mobile phone charging points.

SANITARY FACILITIES

19.34 See [Chapter 18](#) on Sanitation. In the case of events with large camping areas, it is not sufficient to merely allocate facilities on a numeric basis; assess where and when facilities will be under pressure. There will inevitably be a peak morning demand.

19.35 Plan to cluster together sanitary accommodation, drinking water supplies, washing facilities and showers, creating an easily identifiable location for all facilities. Monitor the condition of sanitary accommodation to ensure it is regularly emptied and cleaned as required, in addition to routine programmed servicing.

REFUSE

19.36 Provide refuse receptacles along the walkways and access ways for vehicles and also at conspicuous points, such as sanitary facilities. Ensure that bins are emptied on a regular basis to encourage careful disposal and to avoid creating a fire hazard. On greenfield sites with potentially difficult terrain, this is likely to require tractors and trailers. Active encouragement recycling using separated waste recycling points is likely to reduce the volume of refuse.

SITE LIGHTING

19.37 Provide adequate lighting to enable orientation in the dark, with higher levels of lighting at toilet areas, fire points, information and warden points. Take care in deciding on the nature of lighting. Tower lights may be unsuitable in certain parts of camping areas due to generator noise, as well as providing an overly bright source of light. They may, however, be useful for junctions, crossroads, entrances and facilities. Festoon lighting is routinely used in campsites and provides a good source of low-level lighting, as well as an additional tool for marking out main walkways/fire lanes/evacuation routes. In larger campsites using different coloured festoon lights helps to differentiate areas of the campsite and is useful for orientation of campers and workers.

ACCESS

19.38 Provide both vehicular and pedestrian tracks to and through camping areas to ensure ready access for emergency vehicles and safe routes for pedestrians, free of trip hazards such as guy ropes. Main fire lanes should be wide enough to enable access for the mobile on-site fire-fighting units. If such units are not provided, lanes

should be at least 6 metres wide to accommodate a standard fire tender, and campsites should be easily accessible from the emergency services blue or sterile route. The length of the hose reel on the fire-fighting vehicle will determine the frequency of intersecting fire lanes.

19.39 Actively patrol fire lanes as campers arrive and pitch their tents in order to ensure that the lanes do not become blocked with tents. Consider using a vehicle, such as a golf buggy, to drive along the lanes and remove offending tents. If a tent-removal policy is in place, make sure that this is communicated to the campers via signage and verbally, and that campers know where to reclaim their tent.

NOISE

19.40 Plan for preventing or reducing the impact of potentially noisy activities within campsites or of dealing with any overnight activities that become problematic. Dependent upon the nature and proximity of residences to the site, restrictions may be needed in limiting the background music provided by concessionaires to avoid noise disturbances. Family camping areas should be located in areas where campers will be unlikely to be disturbed by late night noise.

20. Information & Welfare

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

Offering welfare services will help the event to run smoothly

Ensuring the audience is well informed will aid crowd management

Information can be provided via the event website, social media, leaflets, event ticket, a telephone hotline, information points, informed stewards, site maps, event programme, etc

PROVISION OF SERVICES

20.1 Providing information and welfare services at an event not only contributes to the health and safety and well-being of the audience, but also acts as an early warning system to detect any potential breakdown of services or facilities on site. It is good practice for the range and level of information and welfare services required to be determined as part of the operational event risk assessment, although audience welfare services are not covered by the Health & Safety at Work Act.

20.2 Make sure that you clarify the role and responsibilities of welfare and information workers in advance. Fully brief other services involved in the organisation and management of an event, such as stewards and emergency services, about the nature of available welfare and information services. Encourage them to share information and liaise with such services before and during an event. Ensure that workers in the information and welfare services have suitable access and communication with members of the event management team, stewards, first aid, etc.

20.3 Information/welfare personnel should be recognised as part of an events emergency response plan (ERP), particularly with regard to evacuations, bereavements, missing people/children, etc. especially if they are based in fixed points known to the audience. The personnel concerned thus may be the first to learn of an incident and so should also have a radio link to Event Control. Similarly, representatives at least should participate in tabletop exercises.

20.4 Locate information and welfare services in suitable accommodation, easily accessible, well signed, properly lit and quiet enough for face-to-face communications. Make sure that they are open for the whole time the audience is on site. On site signage is an aid to the provision of information. An example of good practice is a finger post signage which is an excellent aid to directional information on a larger event site where not all the services/facilities/attractions are visible.

20.5 The welfare and information team should be provided with a reliable means of communication with others on and off-site e.g. site radio and/or landline telephone. The radio should have an earpiece (D shape for hygiene reasons) and microphone, as the teams work in a public area where messages should not be overheard.

INFORMATION

20.6 Information is an essential element in crowd management. Research has shown that when people have difficulty in obtaining information, they may feel unsatisfied, discontented, or even become aggressive. In turn, this may result in people becoming less likely to comply with safety instructions or, in the extreme, lead to public-order problems.

20.7 Provide advance information about the site layout and facilities on the event website and at the point-of-sale of tickets, preferably in the form of a leaflet. This could include welfare provision, crime prevention advice, suggestions for clothing, food and shelter, personal security, essential health and safety measures, a site map, meeting-up arrangements, pass out details (see 20.13) transport and parking details, information about any prohibited items or practices, and details about how changes in event information (e.g. line-up, transport, location of services) will be relayed during the event. Social media e.g. Facebook and Twitter, is an immediate way to communicate with those at the event and those at home. The information can be very up-to-the-minute and reach a wide demographic. Ensure that official sites are used for communicating event information via social media, as your audience may also be communicating their opinion by these methods.

20.8 Consider using the ticket itself to show the site in relation to main routes, date and timings of the event, and any health and safety information or special conditions. This could be backed up with a telephone number for further information on the entertainment, and facilities available for people with special needs.

20.9 Provide information points according to the scale and duration of the event, to cover all times the audience are on site. Locate them in prominent places, well displayed and lit, but not in a noisy area that inhibits face-to-face communication. Site maps should be freely available or at least provided for reference.

20.10 Information points can give details of public transport, on-site facilities, local facilities, performance times and message-leaving systems. Some of this information could also be provided, along with other health and safety advice, on free handouts or in the event programme. The information point can also be used as a resource to provide up-to-date timetable changes, travel and information updates, and health and safety messages. An external telephone line for emergency or humanitarian use is advisable.

20.11 Brief the workers in the information and welfare services about the site services and layout, as well as emergency procedures and systems for assisting with lost or distressed people, including children.

20.12 Display the site plan prominently at entrances, information points, car parks, first-aid points and in the event programme. Ensure that plans are large, clear, preferably in large print, waterproof, and are marked with the following information, as relevant; for example:

- toilets
- performance areas
- camping areas
- exits and entrances
- car parks
- main roads
- first-aid points
- fire points
- welfare points
- information points
- police point
- catering facilities
- lost peoples meeting point
- lost childrens facility

public telephones
childrens play areas
lost property
drinking water
emergency shelter(s), where applicable
left luggage/property lock-ups, where applicable

20.13 The issue of pass outs will need to be addressed as part of the operational event risk assessment. It is important that the audience is warned in advance if pass outs to the car parks or the local area are restricted.

Before entering the site, the audience should also be told of any facilities or services that are not available inside e.g. no cloakroom or banking facilities.

WELFARE SERVICES

20.14 Welfare services are provided for people who find themselves in difficulties. They fill in gaps not provided by other specialist services, such as medical, police and stewards. Welfare services need to be open during the whole time the audience is on site. Ensure that welfare workers are competent and have received adequate training and briefing.

20.15 Workers from day centres, night shelters, drugs projects, counselling and alcohol services, probation, social services, mental health workers, teachers and solicitors all offer relevant experience that could be invaluable in a welfare service setting. Welfare services, however, offer crisis-intervention and cannot offer long-term support.

20.16 Consider incorporating welfare services into your major incident and contingency planning for an event. They are well placed to offer a wide range of support to witnesses of incidents or to relatives of those involved in incidents. Welfare and information services can help with the dissemination of information during and after emergencies and incidents.

20.17 The range and level of welfare provision depends on the scale of the event. At smaller events, it may be possible to combine information and welfare services in one point. At larger events, particularly where camping facilities are provided, welfare and information services should be available at several locations across the site.

20.18 If suitable, the welfare service may be able to assist in the care of found children/young people who have become separated from parents/guardians and in the support of those whose child/young person is missing at the event. Other site services, such as stewards, first aid etc need to be aware of where this facility is located. Welfare staff must have suitable experience and follow a procedure agreed by the event organiser (see Chapter on Safeguarding children and young people).

MEETING POINT AND PERSONAL MESSAGES

20.19 One of the most common problems at events is that people become separated from the group with whom they have travelled. When planning your venue or site design, consider a place for people to leave messages for each other and a clearly marked meeting place for people to meet up. A card index system is found to be the most effective way of leaving messages.

20.20 The meeting place is often best located near the welfare/information centre, so that further support can be offered to people unable to find their companions.

20.21 There may also need to be a meeting point just outside the site for meeting up or collection by relatives after the event. It is especially important that the meeting point is well lit and clearly signposted and does not create an obstruction to exits. The ability to use the PA system or visual display system to locate individuals in the audience, in consultation with the welfare services, is recommended.

20.22 Few people attend an event on their own. Hence audience members should be advised occasionally during an event to select somewhere on site to meet before they and their group or family

become separated. As they move around a site during the day, selecting a new point may be necessary. This can save time and trouble for both the group concerned and event organisers.

PUBLIC TELEPHONES AND OTHER PUBLIC SERVICES

20.23 Whilst mobile phones are commonplace/widespread, their use is not always possible at times at events. Consider providing public telephones, especially if the site is isolated and if pass outs or re-admissions are restricted. It is essential that there is an operator connection to enable reverse-charge calls. Public telephones need to be accessible and operate during an emergency. If public phones cannot be provided, the audience should always have access to a phone at the welfare/information point for distress/humanitarian communications.

20.24 Wherever possible, cash points should be provided on site, including those that accept overseas credit cards.

LOST-PROPERTY POINT

20.25 Information and welfare services can provide a lost-property point to deal with possessions found on site and for reporting missing or stolen items (where appropriate, in liaison with police services on site).

20.26 Locating a lost-property point with welfare services has the additional advantage of providing support for people who become distressed because of losing their possessions. However, a separate entrance for the lost-property point may be advisable at larger events where the amount of enquiries could overwhelm regular welfare and information services.

20.27 Make sure that found property is taken to the lost-property point as soon as possible, so that details of the property, where it was found, and who found it are recorded. Arrangements should be made for the safekeeping of property that has not been reclaimed at the end of an event, and a contact for after the event.

CLOAKROOM/LEFT LUGGAGE/LOCK-UPS

20.28 Providing lock-ups on site, where the audience can leave valuable or bulky items, may reduce the amount of lost property or theft. It will also aid safety if people have fewer items in crowded situations. The type of items to be deposited and the design of the provision will depend on the event e.g. camping equipment, rucksacks, etc at camping events; coats, bags and warm clothing at one-day events. The facility needs to be open continuously while the audience is on site.

SUPPORT FOR VULNERABLE ATTENDEES

20.29 Provide support for members of the audience who become distressed during the event or who are deemed vulnerable. Such services are also able to provide a space where disorientated people can feel safe and can stay until they feel able to leave, or need referral to specialist help. At larger or longer events, there may also be a need to arrange access to specialist services for people in acute need of psychiatric assessment and support.

20.30 Consider the need to have competent workers available to help attendees experiencing difficulties through drugs they have consumed, including alcohol. Basic guidance on assisting people with drug-related difficulties can be obtained from specialist drug agencies or through the local health authority. If appropriate, provisions should include plentiful free drinking water and a quiet, cool space (chill-out area).

20.31 Consider providing an emergency shelter or a crash marquee that can serve as emergency accommodation for people who are left without transport home or without their own shelter at camping events. Such a marquee can also provide accommodation in the case of a major incident or contingency. In such instances, make sure the ground is covered to protect people from damp, especially if the people being accommodated do not have their own sleeping bags/mats. If a marquee is provided, it will be necessary for the welfare workers to liaise with medical services and stewards about access to this facility. Sanitary facilities, emergency clothing or blankets, and refreshments may also need to be provided.

20.32 First-aid recovery/recuperation and observation, including of people suffering from alcohol/other drug excesses, can be provided at the welfare point if this is pre-arranged and supervised by medical workers. It is

recommended that more serious cases remain in the medical area.

20.33 Events provide unique opportunities for health education, particularly for young people. Wherever possible, encourage relevant health agencies to work in liaison with on-site welfare and information services in providing information on issues such as sun protection, drug use, safer sex, HIV/Aids, and the provision of condoms.

[Click here to view the Welfare Handbook](#)

21. Food, Drink & Water Provision

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

Check local food and drink legislation, as there may be regional variations

Ensure provision of a wholesome water supply in sufficient quantities. Failure to do so may have significant consequences

Levels of hygiene and cleanliness should conform to guidelines and current legislation

Consider Public Liability and Product Liability Insurance in addition to Employers Liability Compulsory Insurance

RESPONSIBLE PERSON

21.1 Each catering operation should have a nominated responsible person, who has the duty of ensuring that the operation is safe, and that other employees are trained in accordance with their duties and aware of their responsibilities.

FOOD PREMISES REGISTRATION

21.2 A food-business operator must register food establishments under its control with the local environmental health department. Food establishments include fixed and temporary structures of all sizes. A moveable or demountable premise or structure must be registered with the local authority (LA) that covers the home base of the operation, rather than with the LA where it is stored overnight. The responsible person should have a record of the authority that the business is registered with so that, if necessary, contact can be made between authorities. It would also be good practice to carry past inspection records

LICENSING

21.3 Food premises do not currently require a licence to trade in food before 2300hrs and after 0500hrs, but there is a requirement for an authorisation issued under the Licensing Act 2003 for the provision of late night refreshment (selling of hot food/drink between 2300hrs and 0500hrs). In addition LAs have the power to license various activities within their boundaries and therefore some traders may require a street traders licence.

Alcohol sales at an event will require a license. Drinking water must be supplied via a tap where a bar is operating. If the event has an attendance of less than 500 persons in England and Wales it will require a Temporary Event Notice (TEN). Larger events will require a full premises licence. Event organisers should also ensure a source of safe drinking water is available throughout the duration of the event. Failure to properly plan for the provision of a safe source of drinking water for an event can have significant consequences.

FOOD HYGIENE RATING/INFORMATION SCHEME

21.4 Where required by law, Food Hygiene Rating Scheme (FHRS) (England, Wales and Northern Ireland) or Food Hygiene Information Scheme (Scotland) stickers must be displayed on every trading unit. There may be differences to requirements in England, Wales, Scotland and Northern Ireland, so event organisers need to make relevant checks.

REGIONAL VARIATIONS IN LEGISLATION

21.5 Event organisers and caterers should be aware of regional variation in legislation that exists between England, Wales, Scotland and Northern Ireland.

FOOD SAFETY MANAGEMENT SYSTEM

21.6 All food-business operators must have an appropriate written Food Safety Management System (FSMS) in place, based on Hazard Analysis Critical Control Point (HACCP) principles and should be trained in its use.

Available systems include:

- Nationwide Caterers Association (NCASS) Due Diligence system (food safety, and health and safety)
- Safer food, better business (SFBB) by the Food Standards Agency
- CookSafe for businesses in Scotland
- Company-specific systems

Allergens and Intolerances

All food businesses must be able to provide information to their customers regarding the presence of any of the 14 specified allergens as ingredients in any of the food that they serve.

Therefore caterers must know exactly what is in their food, and they must understand the requirements to meet the legal obligations. To do that caterers must be able to provide evidence of the exact ingredients used in their food or menu.

HEALTH AND SAFETY RECORD KEEPING

21.7 In addition to the FSMS, a catering business must meet its legal obligations for health and safety record keeping:

- record and report fatal/major injuries, disease and dangerous occurrences under RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013)

- report absences longer than seven days that are work related under RIDDOR

- if the business employs five or more people, written records of health and safety risk assessments and health and safety policy must be kept

STRUCTURES

21.8 All Structures, which include mobile vehicles and carts, must be sited, designed, constructed, kept clean, and maintained in good repair and condition so as to avoid the risk of contamination, in particular from animals and pests. Siting should be away from potential sources of contamination and, where possible, close to key services such as water, drainage and electricity.

21.9 Structures should be of sturdy construction, weatherproof, windproof, and designed and constructed to prevent the ingress of water and, wherever possible, pests. They should be fully covered to top and sides, including food preparation, equipment and food-storage areas. This must include all extensions to food preparation, equipment or storage areas in order to protect against contamination of food. Where premises cannot be proofed against pest access, food should not be stored in the premises, unless in pest-proofed containers. If the premises cannot be pest proofed they must be cleaned prior to production.

21.10 Roof coverings and walls should be manufactured from flame-retardant materials that meet the requirements of BS5438 and marked accordingly. Tents or marquees should be made of easy-to-clean material linings and, where required, ceilings.

21.11 The design and layout should maximise effective workflow to reduce the risk of cross contamination.

21.12 Appropriate lighting must be provided dependent on the activity and the risk.

21.13 Ventilation and forced-extract systems should be fit for purpose, depending on:

- the structure
- the equipment being used
- the site conditions
- surrounding structures
- duration of the event

A recommended minimum of 30 air changes per hour is set for central production units and large catering operations.



FLOORING

21.14 Floors must be easily cleanable and non-slip.

21.15 On greenfield sites, measures must be put in place to limit the transfer of contamination, e.g. mud into food-preparation areas. Arrangements should include ensuring that floor surfaces are raised above the ground, and that floor coverings are readily cleansable and non-slip. Mud transfer may be significantly reduced by the introduction of clean footwear policies involving changing out of dirty footwear into clean footwear before entering food-preparation areas.

21.16 In all conditions, foodstuffs must be placed so as to avoid the risk of contamination, so far as is reasonably practicable. Where catering operations are sited on hard standing, such as tarmac, paving, etc. Foodstuffs must be stored in containers and off the hard standing.

CLEANING

21.17 Legal duties require that a food business must not be conducted in an insanitary environment. In practice this means:

- all work areas, including all surfaces and structures, must be maintained in a good condition, kept clean and free from accumulations of waste
- all equipment must be kept clean and maintained in good working order
- adequate facilities must be provided for the cleaning and disinfecting of work tools and equipment that come into contact with food. This means the provision of sinks or dishwashers, depending on the size of the operation, with a hot and cold-water supply, detergents and disinfectants
- cleaning materials, such as mops and cloths, should not be cleaned in a food sink
- the use of disposable or semi-disposable cloths is recommended, but if re-usable cloths are used they should be washed at 82°C or above
- when using cleaning cloths, care must be taken to prevent the spread of contamination from one surface to another. Colour-coded cloths, correctly used, will assist in reducing the risk of contamination
- each area should have a cleaning plan that is systematic and detailed. The plan should describe the method and frequency for each cleaning task

SURFACES

21.18 Surfaces in contact with food should be in a sound condition and be easy to clean and, where necessary, to disinfect. This will require the use of smooth, washable, corrosion-resistant and non-toxic materials. Surface finishes that comply with this requirement include:

- stainless steel
- food-grade plasticised surfaces
- ceramics

Food-contact surfaces must be cleaned and disinfected frequently. Equipment must be cleaned and free from contamination before the start of work sessions. Areas where dust or food debris may accumulate must be cleaned regularly.

21.19 Disinfectants and sanitisers must meet officially recognised standards and should be used as instructed by the manufacturer.

21.20 Cleaning schedules for each catering unit must be on display.

STORAGE AREAS

21.21 Facilities used for the storage of food, food ingredients, equipment, non-food materials, and utensils, must:

- be easily cleanable
- be located in a clean/dry location
- off the floor
- restrict pest access and harbourage
- minimize the deterioration of stored materials
- protect food from contamination during storage

Cleaning materials must be stored separately from food and food related items.

SAFE USE OF CHEMICALS

21.22 Detergents, disinfectants and sanitisers contain chemicals and therefore should be handled and stored and disposed of with care. Chemicals should be used in accordance with the manufacturer's instructions and not mixed, as this may produce harmful vapours.

CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH

21.23 It is the duty of employers to assess the risks involved in the use of any hazardous substance. Staff and other people must be protected from substances hazardous to health. These include any substances that are toxic, harmful, an irritant or corrosive:

the use of any cleaning material that is hazardous to health must be carefully controlled and any special precautions must be strictly followed during use and storage

try to use substances that will not be potentially harmful to the user, to others and to the environment and train staff to use the products safely

where necessary, personal protection equipment (PPE), such as gloves, goggles and rubber aprons, must be provided. It may be necessary to review PPE as part of the general risk assessment

always read safety information on the label of the product

FOOD PROTECTION

21.24 Food must be protected from sources of contamination at all times.

FOOD WASTE

21.25 Adequate provision must be made for the storage, disposal and removal of food waste, non-edible by-products, used oil from cooking, fats and other refuse where food is present. This should be done as quickly as possible, so as to avoid accumulations.

21.26 Food waste, non-edible by-products and other refuse must be deposited in closable containers unless food-business operators can demonstrate that other types of containers or evacuation systems used are appropriate. Containers must be of an appropriate construction, kept in sound condition, be easy to clean and, where necessary, to disinfect. Foot-operated bins should be used where possible.

WATER SUPPLY

21.27 Where water is supplied for domestic purposes including drinking, washing and cooking there is a legal requirement to provide and maintain a supply of wholesome water. This guidance is intended for those persons who hold responsibility to supply a wholesome water supply and gives advice on how this should be achieved. It applies to all events.

21.28 In the event of a failure to establish satisfactory water quality in line with the Drinking Water Regulations (reference the public and private supply regulations), there must be an alternative established contingency service available, which could involve tankers, bowsers or bottled water. Failure to provide a safe source of drinking water in the appropriate volumes for an event can have significant consequences, with organisers potentially facing:

additional costs

possible notice or prosecution by the local water undertaker for non compliance with the Water Supply (Water Fittings) Regulations 1999

civil action if anyone became ill

bad publicity and cost in retrieving public confidence in your event

LEGISLATION

21.29 While this section is provided for guidance, it focuses on the following legislation:

Water Supply (Water Quality) Regulations 2001

Private Water Supplies Regulations 2009

Water Supply (Water Fittings) Regulations 1999

A number of British Standard Codes of Practice provide important features for the management and provision of a temporary water network:

BS 8551:2011 Provision and management of temporary water supplies and distribution networks (not including provisions for statutory emergencies). Code of Practice

BS 8558:2011 Guide to the design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages

BS 8550:2012 Guide for the auditing of water quality sampling

21.30 A temporary network laid for use during events is an extension of the public supply network if derived from a connection to the mains and is subject to the Water Supply (Water Quality) Regulations or if from a private borehole, well, river or spring it is a private water supply and therefore is subject to the Private Water Supplies Regulations. The legislation is intended to ensure a wholesome water supply is delivered and maintained throughout events, and documentation is provided to support operational procedures. A private distribution system is defined under regulation 8 of the Private Water supply Regulations 2009/10 (in England or Wales) and is upon the presence and ownership of more than one premises in a supply situation.

CONNECTING TO A PUBLIC WATER SUPPLY (WATER UTILITY NETWORK)

21.31 It is important to establish the volumes of water required per day and the peak periods of consumption for an event. There are differing types of festivals and events, all with variable consumption figures; guidance on this consumption can be found in BS 8551. Issues to be considered when estimating water consumption should include the demographics, the duration, location and facilities. Once these consumption figures have been established, permissions can be requested with the local water authorities for water abstraction.

21.32 It is illegal to abstract water from a water utility network without a valid abstraction licence. It is important that permission is obtained from the local water authority. Permission to abstract water from a source can be taken away at any point if water companies suspect regulations are not followed.

21.33 Where an existing mains water supply is being utilised as the main source of water on an event site, it is important to determine who will contact the water-supply company. The person responsible must communicate with the water contractor to ensure all permissions are granted and notifications made.

21.34 If an existing water supply is not available, event organisers can contact the water company to arrange for the feasibility of a new connection to the public water supply. This contact must be made at least 12 weeks prior to the event. The water company will consider the application and decide an appropriate point within their distribution network to make the new connection. All new and existing connections will be metered. Extension to existing water supplies can be utilised in certain circumstances. If the water company does not provide a water meter, it is advisable to connect your own to allow water usage to be monitored. Charges for new connections and usage will vary between water companies.

21.35 Factors that will influence whether a new connection is feasible will be related to the network available, both in size and topography. If the requirements adversely impact on the local water supply, a design will be required to harvest (via storage vessels or temporary reservoirs) water during off-peak periods. This would ensure an adequate water supply is distributed to the event via a temporary network.

CONNECTING TO A PUBLIC WATER SUPPLY (VIA A PRIVATE NETWORK)

21.36 A private network is a service pipe after the boundary stopcock that serves a building or an estate that will often have a water meter, though not in all cases. When abstracting water from a private water network, it is not a legal requirement to consult with the water utility company. However, it is advisable where large volumes (e.g. in excess of 20,000ltr per day) are likely to be abstracted.

21.37 When extending this network, approved double check valves should be installed, together with isolation valves, when making connections. In addition, it is advisable to connect your own meter to allow water usage to be monitored. These connections are NOT chargeable to the water utilities, however they are subject to inspection to establish the Water Supply (Water Fittings) Regulations are complied with. If these regulations are not complied with, the relevant water company has the power to enforce or terminate use of this water supply. Due consideration needs to be given to Water Supply (Water Fittings) Regulations.

CONNECTING TO A PRIVATE WATER SUPPLY

21.38 The following can constitute a private water supply:

where the supply is sourced from ground or surface water and is not connected in any way to the municipal mains

21.39 If a private water supply is to be used for events, it is essential for event organisers to provide environmental health departments with evidence that the supply is compliant with the Private Water Supplies Regulations 2009/10.

21.40 Event organisers will need to be aware that LAs are the enforcing body and that a risk assessment of the supply will be required. Event organisers may carry out the risk assessment and supply this to the LA for confirmation, or the LA may carry out the risk assessment with input from the event organiser. LAs can and are likely to charge for this service.

ALTERNATIVE WATER SUPPLY

21.41 If there is a lack of or inadequate water supply available within an event site, tankered, bowsered or bottled water will be required (dependent on the quantity). Where tankered or bowsered water supplies are required, the nominated contractor must provide/obtain a current abstraction licence.

21.42 Information required from water-supply contractors regarding hydrant abstraction includes:

quantity of water delivered via bowser/tanker
tanker/bowser disinfection logs
tanker/bowser filling logs from hydrants
technician-training competency certificates

WATER STORAGE AND HARVESTING

21.43 If there is an inadequate water supply from a public, private or alternative network, potable water-storage vessels or temporary reservoirs must be deployed, with a temporary network serving all points installed by competent technicians. (A competent plumber could be one approved by the local water company.) This allows control for the overall pressure of the water supply and ensures that it is sufficient to meet demand.

21.44 There are specific requirements around materials, colour, prevention of UV penetration, and need for insulation of potable water-storage vessels (as used by mobile caterers). They should comply with regulation 31 of the Water Supply (Water Quality) Regulations 2000 and have a Water Regulations Advisory Scheme (WRAS) approval certification. Maintenance and disinfection logs should be supplied for each water-storage vessel used on a private temporary water-supply network.

COMMISSIONING OF THE WATER SUPPLY

21.45 Whether the water is fed from a public or private water supply, the installation of temporary network and provision of water should be handled with the same care. All technicians working on the water supply should be competent and hold the relevant qualifications in accordance with BS8551:2011.

21.46 Materials used for the transportation and storage of potable water must be approved as specified in regulation 31 of the Water Supply (Water Quality) Regulations 2000. All equipment/fittings must comply with the Water Supply (Water fittings) Regulations 1999 and be Water Regulatory Advisory Scheme (WRAS) approved. The water-supply contractors must make WRAS approval certificates available to the event organisers for inspection if required.

21.47 The main reason for materials approval is to prevent contamination of the network, most noticeably bacteriological and taste/odour issues. Backflow of contaminated water into the water-supply network poses a huge health hazard concern. Backflow devices and double check valves should be utilised wherever backflow poses a risk of contamination to the water supply. Backflow devices must be WRAS compliant and suitable for the purpose. Depending on the category of risk, backflow protection requirements will vary.

21.48 All equipment, pipework and potable water-holding vessels must be chlorinated using procedures outlined in BS 8558:2011 and BS 8551:2011. Event organisers must ensure that water-supply contractors hold certification for the chlorination logs and a satisfactory sample certificate from such procedures for ALL equipment and vessels used within the private temporary water network. There will also be a requirement for microbiological testing to confirm chlorination. Sufficient time must be allowed for this to happen and a contingency plan devised in case of failure. Maintenance of equipment and vessels must be documented, together with any remedial action taken to overcome potential problem areas.

21.49 Event organisers are responsible to ensure that the installation of a temporary network can maintain wholesomeness. In larger installations, where water is harvested for protracted periods, chlorination certification and bacteriological analysis from a United Kingdom Accreditation Service (UKAS) accredited laboratory should be produced as evidence that disinfection procedures have been carried out in accordance with BS 8558:2011. When water is stored at an event for longer than 48 hours, monitoring wholesomeness of the water supply should be carried out. This requires the monitoring of a number of physical water-quality parameters (as described in BS 8551) at areas within the network that provide a true representation of the whole water supply.

RISK ASSESSMENT

21.50 Once the temporary water network has been installed, a water-safety risk assessment/water-safety plan should be carried out to assess the hazards that could potentially affect the wholesomeness of the water supply and areas by which contamination could occur. This can be presented to environmental health officers (EHOs) and water inspectors, giving confidence to all parties.

21.51 The risk assessment should take into consideration the materials and fittings that have been utilised, the disinfection procedures that were carried out prior to installation, the supply source, any risks of contamination at source and during distribution, and the competency of the technicians installing the network. This should be documented and added to the water-safety plan.

21.52 Risk assessment should detail hazards from the system assessment, note whether it is a public or private water supply, and list the control measures to assure wholesome water supply. An operational monitoring programme should be in place where water is stored for longer than 48 hours. It should identify how water quality is monitored and maintained throughout the installation. The event organiser should appoint a person to take responsibility for this risk assessment and make their contact details available to the environmental health department/water company, depending on the status of the system.

PLANS

21.53 As part of the risk assessment and general arrangements for the water supply, event organisers should include the following schematic plans:

the water-supply distribution network and infrastructure (existing and proposed network), e.g. location and description of source, pipework and tankers (if used)
direction of flow

Plus, the location of:

pumps (specifying their size)
backflow devices/meters
tankers, bowsers or storage tanks
toilet, wash-hand basins and showering facilities
drinking-water points
water-supply points for food preparation
additional facilities, e.g. animal troughs, garden hoses
redundant supplies or 'dead legs'
standpipes for public use
treatment points, e.g. for chlorine disinfection, dechlorination, water testing, and measurements

proposed sampling and monitoring points - these will need to be discussed with the LA. Generally, these samples would be taken from the distribution system and at the point of dispense, i.e. the tap for the catering outlet or the public water fountain (where present)

emergency infrastructure (fire safety)

contingency measures and plans

21.54 The Drinking Water Inspectorate has a risk assessment tool for private water supplies and can be used to check that all requirements are covered.

21.55 If drinking-water fountains are present, cleaning regimes will be required.

21.56 Event organisers should liaise with their nominated water-supply contractors to ensure contingency planning is in place in the event of inadequate or a contaminated source of water supply. These arrangements and logistics should be outlined in detail in the water safety plan. Arrangements must take into consideration the feasibility of the emergency procedures e.g. site accessibility.

21.57 If there is a mains failure, the water company has a statutory duty to make provisions for a supply. The emergency plan should be submitted to the environmental health department for approval at least 14 days in advance of the event.

PREVENTION OF CONTAMINATION

21.58 A large aspect of the water-safety plan is established via due diligence and satisfactory monitoring, including the measurements of chlorine residual (free and total) conductivity, pH and temperature. Bacteriological samples should be taken from representative areas along the water-supply network prior to the event start and also if a decline in water quality is identified through the monitoring regimes. Bacteriological samples should be collected by competent technicians and delivered to a UKAS accredited laboratory within six hours. Although it is essential for the nominated water suppliers to provide sample results for the water-supply network, event organisers should be prepared for environmental health departments to take their own samples too. Potential risks, hazards and control measures concerning water quality are detailed in Table 1, below.

Risks	Hazards	Controls
Declining water quality due to temperature increases (above 20°C on cold-water systems)	Legionella Bacteria growth Bio film development Dead legs Taste and odour issues	Flushing pipelines to reduce temperature Monitoring temperature to ensure its below 20°C Position pipelines and storage vessels in the shade Storage vessel insulation
Declining water quality due to bacteriological contamination	Bacteria increase Standing water Dead legs Non-preparation of equipment	Flushing Bacteriological sampling Monitoring (residual chlorine levels, temperatures) Audit Installer competency Contingency plan, e.g. based on coliform levels, E coli, etc
Declining water quality due to	Non-compliance of materials	Tamper tagging of equipment

chemical contamination	Taste and odour Diesel spillages	Security fencing around vessels Flushing of pipelines Installer/supplier competency (WRAS-approved equipment) Monitoring (pH, conductivity) Correct siting of tanks/pipework
Inadequate water supply/lack of power for plumbing	Running out of water Problems retaining water pressure Poor-quality water source	Accurate and achievable plumbing design Power back-up Storage and pump Planning and assessment Contingency planning

Table 1: Potential risks, hazards and controls of water quality

21.59 Hiring a competent plumber (preferably approved by the water company) is the best option, whether for a mains connection or a private water supply. This will limit problems at inspection when change may be difficult, costly or interfere with the event happening.



QUALITY ASSURANCE

21.60 Event organisers should expect visits at any time from the water undertaker to inspect the integrity of the temporary water-supply network. LAs will often inspect in addition to the water undertaker. Event organisers must prove due diligence throughout their event by keeping comprehensive records of all aspects of the installation and supply. If this inspection finds that breaches of the drinking water regulations have occurred, connection may be denied or organisers will be given a formal notice to make changes to the fixtures/fittings so that they do comply. In serious cases, the connection to the public supply may be disconnected immediately.

WATER USED FOR FOOD PRODUCTION/CATERING

21.61 There must be an adequate wholesome supply of potable water to be used for cleaning food, inclusion in food products, cleaning food equipment, cleaning surfaces that come into contact with food, and for hand washing.

21.62 Where possible, caterers should be connected directly to the supply by the use of pressure reduction valves; this should be the Good Practice Standard. Where caterers collect water from an organisers supply, larger tanks or bowers, they must ensure that their own storage tanks and supply pipework are fit-for-purpose, clean, WRAS compliant, disinfected and audited, as the risk of contamination at each refill is high. Even temporary systems,

often used by small catering establishments, must be cleaned and flushed through with food-safe chlorine-based sterilants e.g. Chemtabs, Aquachlor, Foodsafe or similar, used in accordance with the instructions on arrival on site. Such disinfection must also include taps and pumps. Cleaning and sterilisation of the potable water system must be repeated each time new installation has been fitted, as part of remedial action, or every three months in accordance with BS8551:2011. Chlorinated water used for cleaning should be disposed of safely at a designated disposal point. Water containers should have tight-fitting lids and be fully WRAS compliant in terms of construction material and insulation, and be stored within security fencing.

21.63 Consideration must be given to limiting the use of water from temporary water supplies for food preparation, e.g. by use of pre-prepared salads that do not need to be washed on site, unless the water used is connected directly to the water supply and fully WRAS compliant.

ICE

21.64 Ice that comes into contact with food or that may contaminate food must be made from wholesome potable water, handled and stored under conditions that protect it from contamination.

STORAGE AND TRANSPORTATION OF FOOD

21.65 Conveyances and/or containers used for transporting foodstuffs must be kept clean, and maintained in good repair and condition to protect foodstuffs from contamination. Where necessary, they should be designed and constructed to permit adequate cleaning and/or disinfection. The type of container that will be suitable and the cleaning necessary will depend on the type of food and its intended use.

21.66 Receptacles in vehicles and/or containers must not be used for transporting anything other than foodstuffs where this might result in contamination. Where conveyances and/or containers are used for transporting anything in addition to foodstuffs, or for transporting different foodstuffs at the same time, there is to be effective separation of products. Where conveyances and/or containers have been used for transporting anything other than foodstuffs, or for transporting different foodstuffs, there must be effective cleaning between loads to avoid the risk of contamination. Foodstuffs in conveyances and/or containers must be so placed and protected as to minimise the risk of contamination.

21.67 Where necessary, conveyances and/or containers used for transporting foodstuffs must be capable of maintaining foodstuffs at appropriate temperatures and allow those temperatures to be monitored. In practice, monitoring would only apply to the transport of perishable goods.

STORAGE AND TRANSPORTATION OF WATER

21.68 Containers used for the transportation or storage of water must be cleaned, disinfected and audited in accordance with BS8551:2011 and BS8558:2011. Materials used for the transportation and storage of potable water must be approved as specified in regulation 31 of the Water Supply (Water Quality) Regulations 2000. The main reason for materials approval is to prevent contamination of the networks, most noticeably bacteriological and taste/odour issues. Following disinfection procedures, equipment should be sampled for bacteriological analysis to ensure the cleanliness of the container and its suitability to store wholesome water. Samples should be submitted to UKAS accredited laboratories.

21.69 Water should not be stored for longer than seven days. If water is required for longer than a seven-day period, storage vessels should be flushed and replenished with wholesome water, and chlorine levels should be checked to ensure water quality is sufficient. Where water has been drained and replenished, this must be documented and added to the audit to prove due diligence.

21.70 Water-storage vessels, such as water drums or pillow tanks, should be positioned in shaded areas to prevent rising water temperatures, which may lead to bacterial growth.

TEMPERATURE CONTROL

21.71 Adequate facilities must be available for maintaining appropriate temperature control. Sufficient chilled storage must be provided for high-risk foods, which must be regularly monitored to ensure they are held at the required temperatures, i.e. below 8°C for chilled food (but ideally at 1°C to 5°C) and below -18°C for frozen food. This may be difficult to achieve on hot days and the use of ambient alternative products should be considered where possible.

21.72 Cold-water systems should remain below 20°C; monitoring should happen on a daily basis. Should the temperature be higher than 20°C, flushing of the pipeline is required to meet drinking-water standards. WRAS compliance must also be taken into consideration.

21.73 Hot-water systems used for food preparation and dish washing must be set no lower than 57.5°C to control risk of legionella growth. Should monitoring results show temperatures lower than 57.5°C, thermostats should be adjusted and monitored to ensure they comply with guidelines detailed in HSEs Approved Code of Practice L8. Monitoring must be carried out regularly and temperature records must be kept, including notes of corrective actions taken in the case of loss of temperature control. All food handlers must be made aware of the 2 hour / four-hour rule that shows food can be safely held out of temperature control for short periods of time without significantly increasing the risk of food poisoning. The time for which food can be safely held between 8°C and 63°C is commonly referred to as the 4-hour or 2-hour rule

21.74 Hot holding equipment must be monitored at a frequency of no less than every two hours to ensure that food is kept at 63°C or above; records must also be kept.

21.75 Where perishable food is kept at ambient temperatures for purposes of display, monitoring systems must be introduced to ensure that chilled food is not displayed for a period of more than four hours and hot food for no longer than one period of two hours from the point of production.

21.76 Monitoring systems must also be in place to ensure that foodstuffs are cooked and/or reheated to temperatures that will ensure food safety. Results must be recorded in the Food Safety Management System (FSMS).

21.77 Hot surfaces must not be accessible by the public.

TRAINING

21.78 All food handlers should be trained to a level commensurate with the work activity. This is generally accepted as Level 2 food safety. They should also have a sound understanding of water hygiene and handling. Owner/ operator/ responsible persons should ideally be trained to Level 3 in food safety; this is to ensure that food handlers follow FSMS controls and are also able to assess and manage food-safety risks that may occur in operations. For more complex operations, a higher level of training may be required, particularly if the person has responsibility for food-safety management. Hazard analysis and critical control points (HACCP), first aid and fire extinguisher training may also be required.

FOOD PREPARATION AND/OR WASH-UP SINKS

21.79 Food washing and/or wash-up sinks, separate from wash-hand basins, should be provided where food is prepared or washing up is carried out on site. Sinks must be of sufficient size to permit the effective cleaning and disinfection of equipment and have a supply of hot and cold water.

21.80 Where mains drainage systems are not available suitable, readily indefinable, waste-water containers must be provided. Larger events should consider a temporary piped waste system. Event organisers will need to ensure that it is suitably specified and can deal with the volume of waste produced. Caterers will need to ensure they do not treat a temporary system as a permanent system or it is likely to block. This can result in closure of the food operation. Caterers should also institute systems to prevent food waste being flushed into temporary drainage. This should include effective training of staff and the use of sink strainers. For larger events, organisers should look to fit grease traps or employ enzyme-dosing systems. If dosing systems are used, they need to be re-supplied to remain effective, but this will depend on the length of the event.

21.81 Food-preparation sinks will be dependent on the volume of food washing required. Every sink or other such facility provided for the washing of food must have an adequate supply of hot and/or cold potable water and be kept clean and, where necessary, disinfected.

EQUIPMENT REQUIREMENTS

21.82 All articles, fittings and equipment with which food comes into contact (such as work surfaces, food-processing equipment, crockery, cutlery and glassware with the exception of non-returnable containers and packaging) must be effectively cleaned and, where necessary, disinfected. Cleaning and disinfection must take place at a frequency sufficient to avoid any risk of contamination. All articles, fittings and equipment must be constructed of such materials as to minimise risk of contamination of food and kept in good order, repair and condition. Fittings must be installed in such a manner as to allow adequate cleaning of the equipment and the surrounding area.

HIRED-IN EQUIPMENT

21.83 The owner of hired-in equipment has the responsibility of maintaining it in a safe condition. However, the hirer should take reasonable steps to ensure that the equipment has been checked and is in good working order. All equipment must have the relevant certification for electrical safety, gas safety and pressure testing.

PERSONAL HYGIENE

21.84 Every person working in a food-handling area must maintain a high degree of personal cleanliness and wear suitable, clean and, where necessary, protective clothing. Non-kitchen personnel should generally be excluded from kitchen areas. Where they cannot be excluded, the caterer should make provision for over-clothing (might be disposable) or prevent access wherever possible.

21.85 Protective clothing must be clean and changed regularly. Standards for clothing may differ depending on the duties carried out. Staff preparing high-risk foods should not travel to work in their protective clothing. Where possible, changing facilities and lockers should be provided to avoid the wearing of protective over-clothing outside food preparation and service areas.

21.86 Good hygiene practice will mean that food handlers:

- have clean hands
- do not smoke or spit in food-handling areas
- do not eat or drink while handling food
- cover wounds likely to cause contamination of food with waterproof dressings
- do not wear jewellery or false nails

21.87 No person suffering from, or being a carrier of a disease likely to be transmitted through food, or afflicted (infected wounds, skin infections, sores or diarrhoea), must be permitted to handle food or enter any food-handling area in any capacity. Any person so affected and employed in a food business, and who is likely to come into contact with food, must report immediately the illness or symptoms and, if possible, their causes to the food-business operator. At this point, they must be excluded from food-contact duties for a minimum of 72 hours after the symptoms cease. A fitness to return to work notice should also be completed.

HAND WASHING

21.88 Hand washing is the critical control for food safety. Good practice identifies the need for wash-hand basins to be sited close to areas where high-risk food preparation activities take place. On larger events, a risk assessment should be conducted to assess the numbers and positioning of wash-hand basins. An inspection procedure must be put in place to ensure that they are properly maintained, cleaned and supplied with soap and hand-drying facilities. Consideration should be given to the use of knee, foot or electronically operated systems to reduce the risk of hand re-contamination after washing. Staff should wash and dry their hands thoroughly, using a recognised technique, for example from the Department of Health or the NHS, before handling food.

21.89 Separate hand-wash basins with hot water, liquid soap and drying facilities must be made available in all food preparation areas. The use of non-hand-operable taps is recommended, but if they are not available, taps should be turned off using a paper towel.

21.90 Single-use towels or air driers are recommended for drying hands hygienically.

21.91 Anti-bacterial hand gels are not an adequate replacement for thorough hand washing.

FIRST AID

21.92 Employers are required to provide adequate and appropriate equipment, facilities and personnel to ensure their employees receive immediate attention if they are injured or taken ill at work. These regulations apply to all workplaces, including those with less than five employees and to the self-employed. What is adequate and appropriate will depend on the circumstances in the workplace. This includes whether trained first-aiders are needed and what should be included in a first-aid box. Caterers should carry out an assessment of first-aid needs to determine what to provide. A suitably equipped first aid box is a minimum requirement.

LPG

21.93 Where an installation comprises anything other than a single appliance that is connected to a single cylinder and a single cylinder in reserve, specific guidelines apply:

Guidance for the Installation of LPG and LPG Fired Equipment in Tented Structures, Stalls and Gazebos
Guidance for the Installation Of LPG and LPG Fired Equipment in Catering Trailers, Converted Vehicles, Portable Kitchens, Carts, Trolleys and Bikes

NB: Both are available from the NCASS website as free downloads, or for printed versions for £25 each.

21.94 This should also form part of the fire risk assessment; where large quantities are involved other regulations may apply.

GAS SAFETY CHECK/RECORD

21.95 Where LPG is used, the caterer must be able to prove that a gas safety check has been carried out by a Gas Safe engineer with the relevant level of competencies for the type of appliances used, and a gas safety record issued. The caterer must also make daily checks and have staff trained to change cylinders unless there is a competent person on site designated to do this.

FIREFIGHTING EQUIPMENT

21.96 Organisers and/or catering operators should carry out a fire risk assessment to ascertain the level and type of equipment required. Consideration should also be given to fire warning notices, equipment alarms, hand-held klaxons, etc.

21.97 Recommended types of firefighting equipment:

where oil/fat frying or a griddle is used - fire blankets (this may change in the near future); 6ltr wet chemical extinguishers

where waste bins are provided/used 6ltr water fire extinguishers

where generators and/or electrical equipment are used 2ltr CO2 fire extinguishers; however, this may need to be increased to take into account the number and types of equipment being used

where barbecues are used 6ltr water fire extinguishers

for motorised units additional dry-powder extinguishers should be available for engine fires within the cab if it is separated from the cooking area

The siting of a designated fire point for the extinguishers is to form part of the set-up and operational process.

MAINTENANCE OF FIREFIGHTING EQUIPMENT

21.98 Extinguishers and fire blankets should be maintained regularly and be serviced annually, with a label attached to each item showing the inspection date and the engineers details.

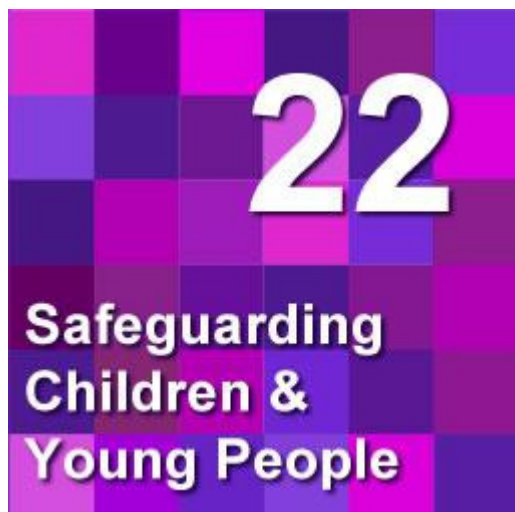
INSURANCE

21.99 Catering businesses must have Employers' Liability Compulsory Insurance (ELCI). This protects the business against claims from employees for accidents or sickness. Public Liability and Product Liability Insurance is not a legal requirement at present, but covers the caterer for claims made against them by members of the public and/or other businesses and may be a required by the event organiser and/or land owner.

Without Public and Product Liability Insurance cover, the catering business can be liable to any successful claim that may arise and all settlement costs involved. The event organiser may also become implicated if a claim arises.

22. Safeguarding Children & Young People

Details Last Updated: 01 June 2017



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

KEY POINTS:

The key aim is to ensure that children attending an event are kept safe and free from harm
Event organisers should ensure they are familiar with local and national legislation and requirements
Prepare a missing and found child policy, arrange lost and found children's points, and consider providing a meeting point where teens can be collected by parents at the end of the event

PROVISION FOR CHILDREN

22.1 Consider provision for children, even if the event itself is not necessarily aimed at them, as children may accompany adults. Publicity material should indicate whether the event is suitable for children and if an adult needs to accompany them; or if children under a certain age are not allowed entry.

SAFETY

22.2 Organisers must understand that every event that involves or includes children is different. The overarching principal must always be to ensure that children are kept safe and free from harm. There is a range of sample policies, guidance documents, tool kits and advice documentation readily available on the Internet. However, it is not sufficient to simply transfer one of these to any event. Event organisers must ensure that they are conversant with up-to-date legislation (e.g. Protection of Freedoms Act 2012), licensing and regulatory law requirements (Licensing Act 2003) regarding to any activities for children that they intend to include within their programme. They should seek advice from similar organisations to themselves, national organisations that promote safeguarding practices (e.g. NSPCC, along with local professionals such as the Local Safeguarding Children Board (LSCB)) to ensure that they are meeting current legislation. As much of the safeguarding legislation is updated through changes to statutory guidance, reference to current guidance through the websites listed at the end of this chapter is recommended.

Due to the nature of the events industry, adults working with/supervising children at an event may be either employed in a professional context or volunteers. Throughout this chapter the term workers is used as a generic descriptor to include both categories. However, in some instances there is a need to distinguish between paid and volunteer workers.

22.3 Ensure that local requirements are also adhered too, as these may be more specific than national guidelines (e.g. requirements for those working with children to have Disclosure and Barring Service (DBS) checks. Some Safety Advisory Groups (SAGs) may ask for specific event policies in regarding the protection of children and will provide organisers with advice and guidance on this.

22.4 Generally new workers who are not known to the event, and who will have regular contact with children at the event (i.e. on three or more occasions in a 30-day period), should have a DBS check. Event organisers may also consider requesting references from events where a new worker has worked previously. Even if workers have DBS checks, there must always be a broader range of safeguarding and safety measures in place, which should be embedded into a safe organisational culture. Complacency about the overall safety of children at events is not acceptable.

22.5 It is good practice for events and festivals to have well thought-out policies, practice and procedures in place for keeping children safe.

22.6 All activities/events for children should be included in overarching risk assessments.

22.7 Recent guidance and up-to-date legislation relating to organisations working with children can be found on the websites listed at the end of this chapter.

22.8 Consideration should be given to the following in relation to children at events:

- the creation of dedicated play areas;
- rides and activities that are not located in dedicated play areas;
- children with special needs;
- activities involving early teenagers;
- arrangements for the safe care of missing/found children (should be present at all events);
- the suitability of all adults working with children
- planning and liaison

22.9 Consideration should be given to the presence of children in the event risk assessment, event safety plan as well as both the major incident and contingency plans. The presence of pushchairs may need to be considered in evacuation plans. Ensure that there are suitable methods of communication with organisers of children's facilities and that other relevant on-site services, such as stewards, first aid, medical and welfare, are aware of the provisions for children, their location, operating times, etc.

22.10 Ensure that the providers of services and facilities are aware of the needs of children and young people e.g. that bar workers have methods of identifying those under age with regards to the sale of alcohol. Toilet facilities could include a parent and baby rooms for baby feeding and nappy changing.

22.11 For all events running activities for children, there will always be a need for adult supervision and help. It is essential to ensure that these adults are suitable to undertake this work and are fully conversant with good practice, along with aspects of the events safety and emergency policies, and with knowledge of the medical and first-aid provision.

22.12 Consider insurance cover for those working with children and the activities taking place.

CARE OF CHILDREN AT DEDICATED PLAY/ACTIVITY AREAS

22.13 Ensure that the areas for children are arranged and managed by people with relevant expertise and experience. Key points to consider are that:

- the designated leader of the children's play area has verifiable, relevant qualifications and experience
- all workers are over 18 years of age
- people with known histories of child-related offences must not be involved
- those involved must not be under the influence of alcohol or drugs, and must be medically fit

ideally a team member should have a current first-aid certificate, or for the area to be located close to a staffed first-aid point
adults working with children must know the location of the nearest first-aid point and all emergency and evacuation procedures
those working with children are briefed on all aspects of event safety policy and child protection/safeguarding issues
all accidents are recorded
all workers are aware of how to report problems and issues of inappropriate behaviour

CHILD PROTECTION AT DEDICATED PLAY/ACTIVITY AREAS

22.14 Consideration should also be given to the following in relation to the event/activities, that:

a designated, qualified and fully trained manager of activities for children is in charge of the play/activity area. This person should have had a DBS check
every child should be under the supervision of more than one worker at all times
children under 8 years of age should only leave an event when accompanied by a parent or a responsible adult
children should only be taken away from designated children's areas, venues or sites if parental permission has been obtained beforehand
children's workers must understand the need to avoid inappropriate handling or touching of children
it may not be necessary for all workers to have a DBS check, however it is advisable that they are either known to the activity organiser or recommended by a trustworthy source
if there are any concerns about an adult's suitability to work with children they should not be placed in that position
those working with children should be aware of whistle blowing policies if they see or are made aware of adults/children's workers/volunteers behaving inappropriately towards or with children
children's workers must be conversant with procedures for discipline and dealing with uncooperative children or their parents
corporal punishment (smacking, slapping and shaking) is illegal
practices that threaten, frighten or humiliate children should not be used
dangerous behaviour by children must always be prevented and discouraged
supervisors should be aware of problems that could arise from intruders. Clear procedures and systems of communication should be in place across the event covering such situations
volunteers should not undertake the care of sick children
photography of children in the designated children's area should follow the event policy procedures

FACILITIES IN DEDICATED CHILDREN'S ACTIVITIES LOCATIONS

22.15 Make sure the following are considered, that:

adequate heating, lighting and ventilation is provided
entry and exit at enclosed sites and venues is supervised and controlled
areas are well defined and appropriately fenced
specific signage of areas of potential danger is in place
there is no access to open water (e.g. ponds) for young children
shade and shelter is provided at open-air sites
sites are close to final exits in case of evacuation
access to toilets and running water is within a reasonable distance of the area or within the venue
toilets and washbasins are regularly maintained and cleaned
adequate provision is made for the regular and safe disposal of rubbish, including used nappies
floors are not slippery
no smoking is allowed within children's areas
no adult hot drinks are in close proximity to young children
safety glass is used at levels that conforms to the relevant British Standards
handrails are at appropriate heights on stairs/steps

the furniture is provided that is suitable for the age of the children
food and drink provided is suitable for children

NUMBERS OF CHILDREN AT DEDICATED PLAY/ACTIVITY AREAS

22.16 The number of children in any area/venue should be based on the size of the space, the activities offered and the number of supervisory adult workers available. Where activities are provided for under eight-year-olds, organisers may wish to contact local authority professionals for advice

CHILDREN'S ACTIVITIES IN DEDICATED PLAY AREAS/VENUES

22.17 Activities should be appropriate to the age of the children involved. Ensure that risk assessments are undertaken for activities and everyone involved is fully briefed in safety procedures. Clearly display information about potential hazards. Pictures may be more effective for children.

22.18 Play equipment accessible to children must be safe, properly maintained and conform to relevant current legislation regarding the safety. Children should be closely supervised when using the equipment at all times. Ensure that there is constant supervision for activities that could be potentially hazardous (e.g. woodwork or candle making). Materials should be clean, non-toxic and non allergenic. Particular care should be taken to check junk materials for cleanliness, suitability and any sharp items (e.g. staples) before use.

22.19 Face painters should only paint faces or hands and always have parental permission. Ask face painters for their Public Liability Insurance and proof that they are using a reputable brand of non-allergenic, water-based face paints. Ensure that information is available to parents/carers about when and how to remove face paints.

CHILDREN OF DIFFERING AGES

22.20 Children's activity organisers must be aware that each age group requires different levels of supervision and types of activity. Consideration must be given in regard to events and activities where children need to be accompanied by adults/carers as opposed to those where children are left under the supervision of workers or volunteers. When young children are left with workers, these adults should be suitably qualified/experienced and have an up-to-date DBS check. Guidelines regarding adult/child ratios can be found in the websites listed at the end of the chapter.

22.21 For children aged 0 to 2 years, there must be nappy-changing facilities, qualified workers, suitable safe toys and all children must be registered on arrival. Provide hand-washing facilities and tables for supervising adults and ensure equipment is regularly cleaned.

22.22 For children aged 3 to 5 years, qualified workers should lead all activities. There should be access to a quiet rest area, activities should be varied and all children must be registered on arrival. The entry point must be supervised at all times to ensure that children do not leave the event unnoticed.

22.23 Children aged 6 to 7 years should be registered on arrival and a variety of interactive equipment and/or activities provided for them.

22.24 For children aged 8 to 11 years, registration may be advisable and more challenging activities that last for longer periods should be provided.

22.25 For 11-18 year-olds, consider the situation regarding the sale of alcohol at the event and methods of identifying those who are under age. Plenty of soft drinks should be available.

22.26 If mixed age group activities are to be run, care should be taken with the layout of the children's area to avoid smaller children being knocked over or accidentally hurt by older children. Materials available must be safe for younger children i.e. not potential choking hazards

CHILDREN WITH SPECIFIC NEEDS

22.27 Consider the requirements of children with special needs and disabilities, and develop an inclusion policy. Where events can provide activities for children with specific needs, ensure there is suitable equipment and that the children can be fully engaged in the activity.

22.28 Ensure that arrangements for adult carers of children with specific needs are in place.

22.29 Appropriate access should be provided both at entry/exit points to the event and also within the event.

22.30 If the event is expecting a considerable number of children with specific needs, prior notice of this should be given to performers/activity leaders to ensure that the children can be fully included within the activities

EPIDEMICS AND SEASONAL OUTBREAKS OF ILLNESS

22.31 Occasionally there are significant outbreaks of serious and easily transmitted illnesses e.g. swine flu 2009. If this occurs, the potential impact on events and activities for children should be assessed. Take appropriate action to minimise any significant risks.

RIDES, AMUSEMENTS AND OUTDOOR PLAY EQUIPMENT

22.32 Position rides and amusements in a child-friendly environment. Rides should be appropriate for the age and size of users. Ride operators must have relevant, up-to-date, statutory certificates for their equipment (see Chapter 15 on Amusements). Bouncy-castle operators must provide proper supervision at all times.

PHOTOGRAPHY AND MEDIA IMAGES

22.33 Consideration should be given to the photography and videoing of children and to how the images will be used. The interests of children must take priority and care should be taken to ensure that photographs cannot be used to identify and trace children, especially if there are accompanying details. Care must be taken that images cannot be manipulated on Internet sites.

22.34 Where possible, ensure that parents/carers give permission or do not object to their child being photographed or filmed.

22.35 Any photographs/media images used by the event for future publicity, etc. should portray children having an enjoyable time and in a safe setting. They must not show children posing in an inappropriate or unsafe way.

22.36 Visitors to the event may well take photographs/videos and it is not reasonable to expect event organisers to police such activity. However, if concerns are raised about the actions of photographers, they should be addressed and dealt with appropriately, if necessary alerting police or security to the problem.

EVENTS INVOLVING EARLY TEENAGER AUDIENCES

22.37 At events attended predominately by young teenagers without their parents organisers should be aware of difficulties that can arise, such as becoming separated from companions, missing the transport home and losing items, including money. Consideration should be given to providing a help point for these young people. Organisers should ensure that policies are in place to prevent young people accessing alcoholic drinks or illegal substances. Consider developing an anti-social behaviour policy in case inappropriate behaviour needs to be managed.

22.38 Parents often take their teenagers to an event, and sometimes have difficulties finding them again when it ends. Consider providing a specific meeting place for parents to wait, along with a staffed message facility. An alternative would be to offer a space where parents can spend the time at the venue, waiting on site to collect their teenagers at the end of the event.

MISSING AND FOUND CHILDREN

22.39 Prepare a missing and found child policy that sets out arrangements for the safe care of lost children until they are reunited with parents/carers. Ensure that all workers are fully conversant with the policy and

arrangements for locating a missing child and dealing with parents/carers who have been separated from their child.

22.40 There should be a clearly advertised collection points for missing/found children, supervised at all times with fully briefed workers. Ensure that children are not left in the sole care of a single worker. If there is a children's area on site, this may be the best place for the care of lost children. In some circumstances, it may be necessary to make an announcement over the PA system. Ensure that any public message (PA system or open radio channel) does not provide specific or personal details about children, such as their names. Communication by event workers regarding found/missing children should be done by face-to-face, telephone or dedicated radio channel.

22.41 If a child is reluctant to go with a collecting adult, seek a second opinion, e.g. from the police. The parents/carers signature and proof of identity should be obtained and also other relevant details recorded, such as the length of time the child was away from their parent/carer. Once a child has been reunited with their parent/carer, inform stewards, and all those who have been involved with the situation to close the incident.

22.42 Useful websites for further advice, guidance and up-to-date legislation include:

National Society for the Prevention of Cruelty to Children (NSPCC) (www.nspcc.org.uk)

The Department for Education (www.education.gov.uk)

Disclosure and Barring Service: The Home Office (www.homeoffice.gov.uk)

GOV.UK (www.gov.uk)

Licensing Act 2003 (www.legislation.gov.uk)

Voluntary Arts Association (www.voluntaryarts.org)

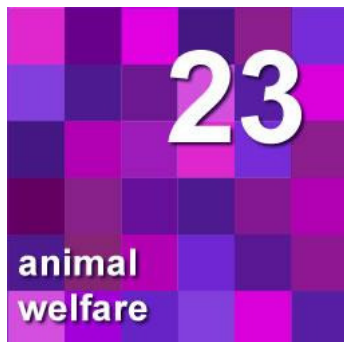
Association of Festival Organisers (www.festivalorganisers.org)

Community Matters (www.communitymatters.org.uk)

Nipperbout (www.nipperbout.com)

23. Animal Welfare

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

In this chapter the guidance given goes beyond the legal compliance of the Health and Safety at Work Act, and associated regulations. It is Industry Guidance:

"Animal welfare is not covered by the Health & Safety at Work Act"

KEY POINTS:

Ensure best welfare practices are observed by considering the attendance of a veterinary surgeon at an agricultural show. The vets role would be to focus on the prevention of infections diseases, and to provide treatment in the event of accidents

A welfare plan should be drawn up to cover perceived risks that could occur

Include a map of the show site to aid staff, the vet, competitors, trade exhibitors and members of the public

23.1 Agricultural shows promote the public awareness of all aspects of farming and conservation. They provide an opportunity to see farm livestock presented at their best. While animal welfare is a prime consideration at Agricultural Shows, there are other events where animals are displayed/used as demonstrations or are found on site and some of this chapter is also relevant for animal welfare in these contexts. Examples are where there is a display of penned animals [such as a city farm] or a demonstration of Hawking or sheep shearing at a community event. At other events, stray animals [especially dogs] may turn up unexpectedly and there should be some provision for them to be cared for temporarily.

23.2 Show organisers have an obligation (under the terms of the Animal Welfare Act 2006 Section 9 (2)) to ensure that the best welfare practices are observed at all times. As part of this obligation, show organisers usually make arrangements for the attendance of a veterinary surgeon. The extent of their involvement will depend on the size and duration of the show, ranging from emergency cover only, to full attendance for several days. Nevertheless, the vet has a duty to ensure they are familiar with the show and its particular welfare requirements.

23.3 The current role of a vet at a show focuses on the prevention of infectious diseases (Animal Gatherings Order 2010) (AGO), and the treatment of accidents and disease, some of which have their origins in poor welfare practices.

23.4 To demonstrate that due consideration has been given to all aspects of animal welfare at a show, a welfare plan should be developed. This should be undertaken with the assistance of the attending vet.

23.5 The plan need not be over elaborate, but should encapsulate the perceived risks that would apply in normal circumstances. The final plan should be available for inspection by animal health authorities, and other competent persons. It should be reviewed on an annual basis.

LIVESTOCK HANDLING

23.6 When livestock are taken to a show they are away from their normal farm environment and are exposed to different premises, sights and sounds, which can make them potentially less predictable. The handlers skills are paramount in putting them at ease and ensuring they are under control. Consequently, livestock should only be moved and shown by competent people who are capable of restraining them. There is no legal upper or lower age limit for cattle handling as individuals capabilities vary widely, but children under 13 years of age should not normally be allowed to handle cattle without close adult supervision. The exhibitor should be responsible for ensuring that whoever is handling their animal of whatever breed or type is competent and has the physical ability to control the animal if required.

23.7 Injury caused when handling cattle does not just affect the young and inexperienced. As handlers become older they can become less agile. Exhibitors should consider the risks carefully when selecting their animal handlers.

23.8 Even with competent handlers, it is necessary to reduce risks to the public when livestock are being moved. In the case of cattle or horses, the show should be structured in such a way as to allow total physical segregation between visitors and animals. Experience shows that the times of greatest risk are when the animals are being loaded and unloaded from road-transport vehicles and while they are being moved en masse between standings and the show ring. At these times, the relevant area, such as the part of the standings occupied by one or more breeds, should be closed to the public, and access placed under the close control of the stewards.

23.9 It will not normally be necessary to segregate the public when individual animals are being moved to wash stations or milking facilities, but this will depend on individual locations.

23.10 An emergency plan should detail the action to be taken in the event of an animal or multi-animal escape, or in the case of an animal fatality.

LIVESTOCK ACCOMMODATION

23.11 Accommodation of livestock will vary greatly between a greenfield site and a permanent showground. The essential requirement is to provide space that will securely restrain the animals with due regard to their welfare, such that visitors can see them, exhibitors can tend and prepare them for show, and neither will be at risk. Show organisers should set their own standards with regard to the siting and amount of bedding and fodder allowed in the area, particularly considering fire risks and the necessary walkway dimensions. Contaminated bedding should be kept off walkways. A quarantine area for ill or distressed animals away from the public should also be provided.

23.12 Where the accommodation consists of pens or crates, the design should take into account the frequency with which the exhibitors will need to enter the pen for preparing animals for show, and allow safe opening and closing. Penning systems that involve having to manually handle heavy hurdles, fit long securing pins or otherwise risk trapping are less suitable than other more easily opened designs. Pen gates that cannot be easily closed also make it more likely that they will be left unfastened, with a risk of stock escaping.

23.13 There may be specific requirements for different breeds, e.g. horned cattle, or where breeds are prone to become overheated and therefore less predictable in their behaviour. Moving cattle between tents and the show ring must also be considered. These could include layout of stalling, barriers, layouts of walkways etc

23.14 Where the public, particularly children, are allowed or encouraged to be in contact with animals, provision must be made for hand washing. See **Chapter 18 - Sanitation**

NB: Useful advice is contained in Animal Gatherings Order: Biosecurity guidance for operators and users in England and Wales



ANIMAL WELFARE PLAN GUIDANCE NOTES

23.15 These notes are intended to assist show organisers in completing a welfare plan for their show. A plan is not obligatory and may not be appropriate in some cases.

23.16 Show organisers need to plan some time ahead to agree:

the date(s) of the show

the classes to be included, and show regulations to be published in the show schedule.

23.17 The plan should identify:

the number and species anticipated to attend

the accommodation required in both type and number

the number of stewards needed, and any necessary training

the level of veterinary attendance

the licensing requirements

HEALTH RISKS

23.18 There is a risk to visitors of contracting zoonoses (diseases that can be transmitted to humans from animals) from show animals or from the faeces of animals that have previously grazed on the showground/camping area. The risk of contracting a zoonoses, such as E coli O157 or cryptosporidium, is low but can cause severe illness, particularly in children and the elderly. It should be assumed that all farm livestock could be carrying zoonoses, and reasonably practicable precautions should be adopted.

23.19 The current Health Protection Agency (HPA) advice is that farm animals should be removed from a camping area at least three weeks prior to the event to protect people from infection. However, The Animal Gatherings Order requires a break of 28 days between animal gatherings to protect animal health. Therefore ensure that farm animals are removed for 28 days prior to the show. Dispose of visible droppings, and also grass cuttings after mowing the area.

23.20 For many visitors, being able to get close to livestock is an integral part of their visit to an agricultural show. If visitors are allowed/encouraged to have access to livestock, take precautions to prevent them contracting a zoonotic disease by:

designating a particular area as an animal contact area ensuring members of the public do not come into contact with faeces or faecal contamination, e.g. on gates, handrails, etc avoiding run-off from manure or manure storage contaminating walkways

THE FIVE FREEDOMS

23.21 A welfare plan should take into account the guiding principles of The Animal Welfare Act 2006 Section 9 (2), which establishes the animal owners Duty of Care. It sets out The Five Freedoms:

1. Freedom from hunger and thirst by ready access to fresh water and a diet to maintain full health and vigour
2. Freedom from discomfort by providing an appropriate environment, including shelter and a comfortable resting area
3. Freedom from pain, injury or disease by prevention or rapid diagnosis and treatment
4. Freedom to express normal behaviour by providing sufficient space, proper facilities and company of the animal's own kind
5. Freedom from fear and distress by ensuring conditions and treatment that avoid mental suffering.

LIVESTOCK WELFARE ISSUES FOR CONSIDERATION

23.22 Cattle

Dairy cattle

falsely altering the shape of the udder with gas or liquids

overstocking of udders (delaying milking)

sealing teats with glues or licensed teat sealants

administering medicines without veterinary prescription to manipulate milk let-down

Beef cattle

restriction of water intake and resultant dehydration

heat stress and respiratory disease

use of growth promoters

23.23 Sheep

overheating, especially long-wool sheep shown in full fleece in hot weather

contravention of tail docking regulations

injuries caused during shearing competitions and demonstrations

NB: The Sheep Shearing Association applies stringent rules at all competitions to safeguard the welfare of the sheep.



23.24 Pigs

restriction of water intake and resultant dehydration.
Heat stress and repertory diseases
Out door pens protection from sunlight

23.25 Camelids (e.g. llamas)

Heat stress and respiratory disease

23.26 Poultry

confinement for long periods in small cages/enclosures
heat stress
social stress (mainly cockerels) caused by housing too close to other birds
fear, caused by too-close proximity of unknown birds or spectators

23.27 Rabbits, cavies and small mammals

fear, caused by too-close proximity of spectators
adequate provision of food and water
pens/cages must be of a suitable size for the occupants.
Over heating

23.28 Horses

equine welfare issues are covered by Breed Society Regulations and guidance and The British Horse Society Code of Practice for the Welfare of Horses and Ponies at Events; respective equestrian officials should be consulted when present

Reason for Recommendation:

It is comprehensive, developed and supported by all of the major equestrian organisations and also provides safety information that may be useful to show organisers. It covers not just showing but is applicable to all equestrian events that may take place.
abuse with sticks and whips usually takes place in parking and warm-up areas
stewards must be fully briefed regarding surveillance and reporting

23.29 Animals/birds for exhibition or demonstration (animals on trade stands)

enthusiastic amateurs wishing to promote their animal/birds are not always aware of the welfare requirements of a show, or codes of practice of their parent organisation
health and safety issues relating to the temperament of the animals and the accommodation provided should be considered

23.30 Dogs owned by the general public on the showground

show organisers must consider the issues raised by allowing dogs onto the showground. In particular, they can cause stress if allowed to approach livestock
there are significant issues relating to leaving dogs in unattended cars. The owners are ultimately responsible for their own pets; nevertheless a contingency plan to deal with distressed animals should be put in place. The RSPCA often has officers on site; formal contact should be made prior to the show

REF DOCUMENTS

The BHS Code of Practice is available online by searching or through:

<http://www.bhs.org.uk/~media/BHS/Files/PDF%20Documents/BHS%20Code%20of%20Practice%20for%20the%20Welfare%20of%20Horses%20and%20Ponies%20at%20Event>

ASAO Welfare plan template: www.asao.co.uk

Farming and Countryside Education - Visitor Attractions Industry Code of Practice

24. Fireworks

Details Last Updated: 07 June 2016



Please note: The information contained in this guide provides pointers to legislation and good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

Key Points

Public firework displays at events must be properly planned and managed by a competent company or person (i.e. someone with sufficient training and experience);
A risk assessment must be undertaken giving consideration to the weather conditions and location and in order to choose appropriate fireworks for the display and to provide contingency planning;
The public must be kept out of the display site – often this will require suitable barriers and stewarding;
Consideration should be given to environmental issues, including noise, debris and smoke;
Adequate arrangements must be made for clearing the site after the display

GENERAL POINTS

The use of fireworks can provide a spectacular addition at any event, but the planning required for their use is considerable. Fireworks are explosives, and of all the features of an event, large or small, they pose a risk to operators, the audience, structures and the surroundings. It is essential that these risks are managed sensibly and proportionately to ensure a safe and spectacular display.

It is almost always possible to use fireworks at an event in some way and, by suitable choice of site and the use of appropriate fireworks rigged and fired by competent people, the risks are extremely low. Nevertheless it is important to appreciate the potential risks at an early planning stage and to ensure that they are not increased during the display by a breakdown of the control measures that have been put in place.

A distinction is made in this guide between outdoor firework displays and pyrotechnic stage displays. This chapter is devoted solely with outdoor firework displays – for stage effect pyrotechnics see Chapter 14.

AMATEUR OR PROFESSIONAL

This chapter focuses on event planning where a professional display company is employed by the event organisers to plan, rig and fire the display. As such the information provided is aimed at ensuring that all parties understand and address the issues involved in having fireworks at an event. However, much emphasis is placed on the professional display company to have established procedures and systems in place to maximise both the spectacle and the safety of the event.

At smaller events it may be appropriate for the organisers to rig and fire the display themselves (e.g a school November 5th display or a community event). Although this guide does not directly cover such events, many of the principles below still apply.

CATEGORIES OF FIREWORKS

The British Standard BS7114 defines 4 categories of fireworks, and this approach is followed in the new European Standards that will completely come into force completely in 2017.

Category 1 – indoor fireworks

Category 2 – garden fireworks

Category 3 – display fireworks

Category 4 – display fireworks for professional use

Amateur firers should only use Category 1-3 fireworks in their displays, but professional companies may use the whole range – depending on the site and the requirements of the event. Category 4 fireworks do not, however, have to be more powerful or larger than their equivalents. In some cases the only difference is the fusing arrangement and the labelling.

The Pyrotechnic Articles (Safety) Regulations require that those supplied with Category 4 fireworks be “Persons with Specialist Knowledge” and have undergone suitable training and hold appropriate insurance. One such training scheme is that organised by the British Pyrotechnists Association – which has 2 levels of qualification endorsed by the City and Guilds organisation.

It is important to select an appropriate company to fire a professional display and the following organisations have lists of members available online.

The Explosive Industry group of the CBI (EIG) – <http://www.eig.org.uk>

The British Pyrotechnists Association (BPA) – <http://www.pyro.org.uk>

The Event Suppliers Association (TESA) – <http://www.tesa.org.uk>

TRAINING

Whatever the type of display, the people rigging and firing it should be able to demonstrate a suitable level of experience and competence. For amateur displays the companies from which they purchase their fireworks will often offer training as part of the sales and after-sales process. For professional companies the BPA's Firers and Senior Firers qualifications, backed up with ID cards and logbooks of displays fired are the Industry recognised standards. Training is available to members of professional companies, whether they are BPA members or not, and there are pre-qualification criteria to meet.

The BPA also run periodic “awareness” courses for event organisers and enforcers. Further information is available from the BPA.

There are other displays courses aimed at professionals available. For instance there are courses on display safety, risk assessment for displays and the use of ShellCalc© - details are available at

<http://www.pyroworkshops.com>

SUITABLE SITE

The most important thing in planning to have fireworks at an event is the selection of a suitable site. Every site, irrespective of the scale of the event should have the following areas, which may collectively be regarded as the “Display Site”:-

The firing area itself – where the fireworks are rigged and fired;

The Safety area – between the display and the audience, performers, buildings or other hazards;

The fallout area – where the debris will land from the firing of the fireworks.

In the UK there are no prescriptive distances and sizes for these areas for professionally fired displays – the decision of appropriate distances is decided by the display company together with the event organisers. This, in turn, will determine the appropriate fireworks to use (but see “Contingency Planning” later).

For amateur displays using category 1-3 fireworks there are minimum distances provided on the fireworks themselves.

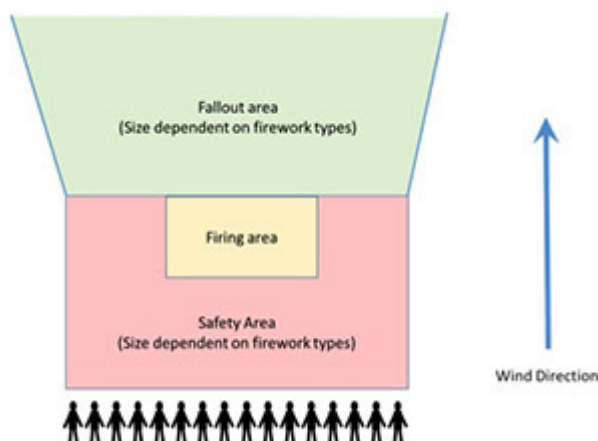
It is generally possible to provide a display on any site by suitable choice of fireworks but obviously the larger the areas available, the greater the flexibility the display company has to react to the weather conditions (and other factors) on the night of the display the better.

Ideally there should only be audience on one side of the display site with the prevailing wind coming from behind them across the firing area to the fallout area. Of course, the wind on the night of the display may not be in the prevailing direction (which is normally from the South-West in the UK), or there may be topological features which cause the wind to vary at different heights – but these should be considered at the event planning stage and suitable contingencies identified – which could include:-

Moving the display site;
 Removing certain items from the display;
 Cancelling the fireworks entirely.

It is vital that unauthorised access to the display site is prevented. Often this will require the use of barriers and stewarding. During the display itself (usually in the dark) it is important that the event organisers ensure that no-one is able to encroach into the display area.

The ideal site is shown below:



SITE VISIT

It is essential that a site visit is undertaken prior to the event involving the event organisers, the display company and, possibly, other bodies such as the emergency services. The site visit should identify:-

The preferred display site;
 Possible alternative display sites;
 The prevailing wind direction and any local features that may alter that;
 Hazards around the site, both fixed and those that may only be present as a result of the event;
 Access routes for the display company and for emergencies;
 Areas that need barriers and/or stewarding.

However, it is important to appreciate that the conditions of the site at the time of the site visit may change significantly on the display date itself.

Online resources such as “Google Earth” provide an overview of the site surroundings and may be useful for determining site distances (but it is better to measure them), but again it should be noted that the information displayed may be significantly out of date.

PLANNING THE DISPLAY

Once the display site is agreed and the requirements of the event are decided, then – and only then – the process of planning the display may begin, including the choice of suitable fireworks for that display at that site on that date.

If the site is restricted then it is likely that the choice of fireworks will be restricted. If the site is flexible (for instance where a barge could be moved to maximise the fallout area depending on wind direction and strength) then the choice of fireworks can be more flexible. In the planning of the event the display company may choose appropriate fireworks on the basis of the most likely conditions but reserve the right to remove items from the display if the conditions change.

It is important that the event organisers do not apply pressure to the display company to fire the show in any conditions – ultimately the decision on what is safe to fire or whether the show should be abandoned completely, must rest with the display company. Fireworks are one area of an event where it is not the case that “the show must go on”.

For more information on firework types and planning events from a safety and artistic viewpoint see <http://www.fdee.com>

RISK ASSESSMENT

A suitable and sufficient Risk Assessment should ideally be carried out by the event organiser (guided by the display company) and the display company itself to determine:-

- The suitability of the site;
- The choice of fireworks;
- Contingency planning (see below);
- Hazards during the rigging and testing phase;
- Hazards from fallout;
- Hazards from misfires;
- The effects on the surroundings, including the effects of smoke (see below);
- Hazards during derigging and clear-up.

It may be that many aspects are covered by a general risk assessment by the display company but these should almost always be supplemented by a site and product specific risk assessment. Every display is different to an extent and even on sites frequently used for displays some factors (weather, crowd position and numbers, local hazards etc.) may change.

Tools available to assist the planning of displays include ShellCalc© - a trajectory and fallout modelling tool.



SMOKE ISSUES

Following the incident on the M5 in 2011 when the smoke from a firework display was initially blamed for causing the pile up in the fog, it is important that event organisers and display companies consider the possible effects of smoke, particularly on traffic routes nearby. Although the subsequent Coroner's inquest into the M5 incident concluded that smoke from the firework display was not the cause of the incident, he said he could not rule out that it could have been a contributory factor.

It is not the case that displays should never be fired near roads, but it is important that event organisers and display companies (or amateur firers) consider the implications and put into place systems that:-

Identify areas that may be at risk;

The likely weather conditions at the display date, especially with respect to very high humidity conditions where fog is likely to form and sources of such humidity, including local river valleys or bodies of water;

Means of monitoring smoke movement and dispersion, especially in still conditions;

Means of halting a display once started;

Means of informing the emergency services if smoke does threaten local roads or railways.

ENVIRONMENTAL ISSUES

In addition to fallout debris (see later) and smoke, firework displays produce both solid and gaseous by-products from the functioning of the fireworks and the combustion of the explosive substances they contain. These by-products potentially have an impact on the environment but studies by the Disney Corporation (where a display has been fired every night for over 20 years) show the effect on plant and animal life in the lake adjacent to the display site is minimal.

Studies conducted in London for the New Year celebrations have also shown that the gaseous by-products (CO₂, NO_x, SO₂) account for approximately one three-hundredth of that produced by the vehicles used to transport the audience to the celebrations.

CONTINGENCIES

As a result of all the planning phases of the event, the display company should produce, in a form which is proportionate to the risks of the display and the site and the scale of the display, some form of contingency planning to identify:-

When items should not be fired or the display should be curtailed;

Alternative firing arrangements if appropriate (e.g. moving a barge);

When the display should be cancelled.

These plans should be shared with the event organiser (and any other interested parties, such as broadcast media) before the event so that expectations are both accurate and realistic.

TRANSPORT

Display companies will transport their fireworks to the display site in accordance with the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (and as amended). The responsibility for legal transport rests with the display company and may, depending on the scale of the event and the fireworks selected, involve the use of specialist vehicles and formally trained drivers.

The transport of fireworks is rarely an issue for event organisers to consider except where it is necessary to provide "stabling" for the vehicles prior to the display, or where the event is sufficiently large, or onsite security so tight, that special provisions should be made to ensure the arrival of vehicles carrying explosives is as smooth and as quick as possible. If there are security checks that need to be carried out then these should be done in an area away from the general flow of traffic and the risks of carrying out those checks should form part of the event risk assessment.

All of the fireworks used in the display should:-

Be classified (i.e. have been assigned a hazard Code according to the UN Recommendations). It is no longer required that HSE classify all fireworks in the UK – provided the fireworks have been classified properly elsewhere;
Be packaged correctly;
Be loaded safely onto the vehicle.

And in addition:-

The vehicle should be appropriate for the types and quantities of fireworks being carried;
The driver(s) should be suitably trained;
The vehicle should be placarded with emergency signs as appropriate;
Information for the emergency services should be available.

If, after the display it is necessary to transport any unfired fireworks or duds away from the display site, all the transport provisions still apply.

ON SITE STORAGE

For the vast majority of displays (except those at the largest events, or where there are multiple displays at a single site over consecutive days) there is no requirement for onsite storage, or for the storage area to be licenced by either the Local Authority or HSE.

However for the large events, or where for security reasons the fireworks must be brought onto the display site well ahead of the event, appropriate licenced storage may be required.

The Explosives Regulations 2014 detail the different types of licences that may be required, the types of buildings deemed suitable, and the separation distances those buildings need to be from roads, occupied buildings etc.

The display company will be able to advise on whether such licenced storage is required during the planning stages of the event.

RIGGING AND ON SITE WORKING

During the rigging phase of the event it is important to ensure that there is no unauthorised access to the firing area. It may be permissible to allow other people to work in the safety and fallout areas during this phase, as the risks from the fireworks is extremely low before they are fired. Nevertheless, there are risks – some of which may be greater during this phase (e.g. an accidental ignition spreading fire to the load in the vehicle). Consideration of appropriate measures during the rigging phase should form part of the overall risk assessment.

The display company may need to manipulate the fireworks on the display site (e.g. fusing items together or fitting electric igniters) and it is important that this is done in as low risk way as possible, preferably away from any bulk holding of fireworks (i.e. not on the vehicle where the fireworks are stored prior to rigging). In most cases the preferred approach is to carry out any such manipulation prior to arrival at the displays site but if this is not possible then it is best done once fireworks have been loaded into their firing tubes so that the effects of any accidental ignition are minimised.

Although different display companies have use different rigging methods and firing equipment, the following general principles should apply:-

All firing equipment should be setup in such a manner that it should “fail safe” wherever possible,
The firing tubes for each firework with a projectile effect (e.g. mines, roman candles and shells) should have at least two independent methods of fixing and support;
The failure of a single firework should not compromise the structural integrity of adjacent fireworks or their firing equipment (e.g. mortars within racks) causing it to fire at an undesirable angle or function prematurely.

THE DISPLAY ITSELF

During the display itself the display operators are extremely busy, and given that it is dark, may not be able to witness events taking place across the event as a whole. At very large displays the display company may position

“spotters” to monitor fallout (see later) and to communicate with the senior firer on site.

Manually fired displays are common for small displays and offer a level of control from the firer. Electrically fired displays may add significant creative opportunities but potentially introduce new risks which should be assessed by the display company.

Modern electric firing systems allow the firer to modify or halt the display at any point during the display and the design of the display should incorporate the aspects of contingency planning outlined above.

COMMUNICATIONS

At all times it is important to maintain adequate communication, not only between firers on the display site but also any 'spotters' and the event organisers or event managers. Hand-held 2-way radios are usually adequate but we strongly recommend that a dedicated channel is used for display communication to prevent any delays in issuing a 'STOP' order.

The display site is a noisy environment and steps may be necessary to ensure the display firers can hear the communication – this may include the use of 'in-ear' monitors or 'noise-cancelling' headsets.

FALLOUT

It is an inevitable consequence of almost every firework display that “what goes up must come down”. All fireworks functioning normally produce some debris which is carried on the wind downwind of the firing site. The distances may be several hundreds of metres in some firing scenarios, depending on the wind strength and direction as well as the firing angles used. This type of debris may be regarded as 'Low Hazard/High Frequency' in most cases and should be considered in the Risk Assessment process with respect to falling on the audience, structures or other vulnerable sites, especially where long duration effects are used which may reach the ground still alight.

The other major factor in the Risk Assessment process should be the 'Low Frequency/High Hazard' events, such as the projection of a firework in an undesired direction, or a dud firework falling to the ground, or ultimately an incident where both of these occur together.

However, it is not always necessary to only put the audience at the largest distances identified by this Risk Assessment process – managing risks to acceptable levels does not mean that the display is 100% 'safe' – it means that a proper process of risk evaluation has concluded that at the safety distances determined by the display company the risk is 'as low as is reasonably practical' or better.

Display companies should tailor their displays to suit the site and to take into account both types of 'fallout'.

DERIGGING

After a sufficient 'cooling off' period the display site should be checked by the display company and any duds or misfires identified. The display company will have in place procedures to make safe any fireworks that have failed to function properly.

During this period there should be no admittance to the display site and any barriers and stewards should remain in place until the 'all clear' is given.

The company will then derig the display site and load equipment and fireworks back onto vehicles for transport back to their base or to an onsite store as appropriate. During the planning of the event it should be determined how much of the whole display site (if any) may be open for access by the event for other purposes (e.g. vehicle movements).

ACCIDENTS AND INCIDENTS

In the case of any accident or incident, and particularly where there has been an injury to a member of the audience, other event personnel, the display operators, or where damage has occurred, it is essential that adequate information is recorded as soon as is possible. This should include:-

A plan of the display site at the time of the accident;
The position of the injuries or damage relative to the display site;
The time of the accident;
The wind strength and direction;
Contact details for all those involved;
Any other relevant information.

If possible photographs should be taken at this time, although this may not be possible.

The display company will have a mechanism for reporting any accident or incident to the company management who should then liaise directly with the event organiser and venue as to follow up action required.

FURTHER INFORMATION

The following may be useful sources of further information:-

The Health and Safety Executive (HSE) fireworks website – <http://www.hse.gov.uk/explosives/fireworks/> and the following guides:-

HSG123 is aimed at competent display operators and organisers possessing specialist knowledge of fireworks - <http://www.hse.gov.uk/pubns/priced/hsg123.pdf>

The BPA have produced a supplement to HSG123 to reflect modern firework types and techniques – see http://www.pyro.org.uk/?page_id=115

HSG124 is aimed at organisers firing their own firework displays - <http://www.hse.gov.uk/pubns/priced/hsg124.pdf>

The Department for Business, Innovation and Skills (BIS) webpages on fireworks - <http://bis.ecgroup.net/Publications/ConsumerIssues/ProductSafetyFireworks.aspx>

The British Pyrotechnists Association (BPA), including download of training materials and details of Firers, Senior Firers and Awareness courses – <http://www.pyro.org.uk>

The Explosives Industry Group (EIG) – <http://www.eig.org.uk>

The Event Suppliers Association (TESA) - <http://www.tesa.org.uk>

Book: Firework Displays - Explosive Entertainment. A guide to getting the most from your firework display for designers, firers and event organisers – <http://www.fd-ee.com>

ShellCalc© – a fallout and trajectory modelling program – <http://www.shellcalc.co.uk>

Pyroworkshops – Display planning, Risk Assessment for displays and use of ShellCalc© – <http://www.pyroworkshops.com>

25. Working in a Safety Advisory Group

Details Last Updated: 07 June 2016



Please note: The information contained in this guide provides pointers to legislation and good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover everything that organisers need to consider for a particular event.

Key Points:

Whilst this chapter will inevitably be beneficial to members of Safety Advisory Groups, it is also intended to be a useful source of reference for event organisers and others who may work with such groups in relation to their own, or others', events.

While SAGs are advisory and have no legal status, they are considered good practice;

It is important to establish the terms of reference for a SAG;

It is important to ensure that members of a SAG are competent and appropriate;

SAGs can operate without necessarily holding meetings

25.1 Safety Advisory Groups (SAGs) have been in existence for many years, to some extent as a consequence of the recommendations of Lord Justice Taylor following his inquiry into the Hillsborough Tragedy of 1989. Whilst this encouraged the establishment of SAGs in relation to football it was also recognised that there are also potential advantages in terms of SAGs for a broad range of other events.

25.2 In the absence definitive guidance a variety of approaches have developed with consequent inconsistencies.

25.3 Forming and retaining the SAG is not a legal requirement. However, they are considered a good practice, as recommended in several national guidance documents.

25.4 A SAG may be formed in relation to a specific event, a venue or with a broader remit in relation to a range of events. In either case, it is important to ensure that a 'constitution' exists which sets out clearly the roles and responsibilities attaching to it, the membership and the policies which may underpin how it is to function.

25.5 What should be vital is to ensure that a quality assurance process is in place in terms of the safety arrangements for events. Whilst there may be alternative means of achieving this, such as third party or peer review, the option of having a SAG comprising competent individuals scrutinising the safety arrangements must be the preferred option.

TERMS OF REFERENCE

25.6 An important element of the constitution will be the terms of reference. These should accurately reflect the key role of providing a quality assurance process for the safety related aspects for any event(s) and venue(s) falling within this role. It is stressed that the functions of this group should be distinct from the planning group for such events, and indeed it should not be confused with the arrangements for the management of the event(s).

25.7 Agreeing these terms of reference is a matter for local determination. However, the following examples may assist in this process. These may be either generic or specific according to the nature of the role at this local level. Generic terms of reference may include:

- To promote clarity of roles and responsibilities relevant to the event(s) within the SAGs remit;
- To advise the local authority and/or event organiser in order to ensure high standards of health and safety;
- To promote the principles of sensible risk management in safety and welfare planning;
- To promote a consistent and co-ordinated, multi-agency, approach to event planning and management;
- To advise the local authority and/or event organiser with regard to forming appropriate contingency and emergency arrangements;
- To advise the local authority and/or event organiser in respect of relevant legislation and guidance;
- To encourage arrangements to be made to minimise disruption to local communities;
- To consider the implications of significant incidents and events relevant to their venue(s) and events;
- To consider the implications of significant incidents and events relevant to the surrounding areas and facilities;
- To receive reports relevant to debriefs, visits and/or inspections of the venue or event.

In some cases it will be relevant to consider specific terms of reference in addition to these generic examples. These may include:

- To advise the local authority with regards to its functions in relation to safety certification;
- To advise the local authority with regards to its powers under the licensing legislation.

25.8 In some cases it has been determined that a SAG will only consider certain categories of event, such as those on local authority land. Of course, the reality is that this could preclude consideration of other events, which may involve higher levels of unrecognised risk.

MEMBERSHIP OF THE SAFETY ADVISORY GROUP

25.9 In his report, Lord Justice Taylor refers to statutory, non-statutory and invited members of a SAG. For the purpose of this guidance, however, only core and invitees will be considered. A core member can be expected to attend all meetings and all agenda items whereas an invitee may only be expected to be involved in respect of specific events, meetings or agenda items.

25.10 It is extremely important to ensure that the representatives and members of a SAG are credible, competent and of an appropriate position within the organization they represent. It will also be crucial for relevant organisations to be represented if suitable and sufficient review of an event proposal is to take place.

25.11 Core membership of a group is likely to include:

Local Authority (may be at County, District/Borough, Metropolitan and/or Unitary levels - this could include Licensing, Environmental Health or others as determined appropriate on a local basis)

Building Authority

Police Service

Fire and Rescue Service

Ambulance Service

25.12 Invited members may include:

Other local authority representatives as deemed appropriate (this could include Event Team, Emergency Planning, Highways, Health and Safety)

Event organisers/promoters

Venue owner/operator
 Health representatives
 Stewarding/security
 Traffic/transport providers
 British Transport Police
 Maritime and Coastguard Agency
 Harbour Authorities
 Medical/first aid providers
 Resident/community representatives
 Highways Agency
 Crowd safety managers

(Note: These are not intended to be exhaustive lists)

CHAIRING OF THE SAFETY ADVISORY GROUP

25.13 It is most common, though not exclusive, for the Chair of a group to be a local authority appointed representative. In some cases it has been determined that they should be an independent appointee. What is vital, if the group is to function effectively and efficiently, is to have someone with the appropriate skills and competencies for this potentially demanding role. These are likely to be more focused upon competencies in communication, diplomacy and interpersonal criteria rather than detailed legal or subject matter knowledge.

25.14 The Chair should be able to absorb and evaluate the detailed arrangements for events whilst maintaining an objectivity of approach taking into account the views of the group members.

25.15 In many situations a SAG, chaired by a local authority representative, may be considering the arrangements for one of their own events. In such cases it is important to be able to demonstrate a transparency in the groups' processes. It would be appropriate to avoid suggestions of bias, by the Chair declaring a conflict of interest if necessary, in order to avoid such allegations. As already suggested some have recognised the benefit of appointing an independent chair, possibly from another authority.

25.16 Key responsibilities for the Chair of a SAG will include:

- Ensuring that the group discharges its responsibilities fairly, effectively and proportionately
- Ensuring, where practicable, appropriate representation on the group
- Ensuring that all members have an opportunity to participate
- Ensuring that an audit trail of group processes is maintained

POLICY TO UNDERPIN SAFETY ADVISORY GROUP PROCEDURES

24.17 There can often be a fine line between what might be deemed to be part of the terms of reference and what could, perhaps, be better regarded as an underpinning policy. It will be appropriate to consider the terms of reference to be focussed upon what a SAG does, the policy may be deemed to be more about how this is done. Such a policy may consider:

It is the policy of this Safety Advisory Group to, so far as reasonably practicable, offer advice in order to ensure the highest possible standards of public safety at events and to encourage the wellbeing of those that could be affected by such events. In this context this could include those attending the event, but also those in the surrounding areas that may be affected by the impact of it.

The Group is not responsible for review of safe systems of work of event organisations/crews. However, it will be relevant to consider the consequences of work related incidents during periods of public access.

The Group does not make any decisions on behalf of the local authority as its role is advisory and as such it has no authority to either approve or ban events.

The decision-making authority is typically delegated to the local authority possibly via the Chair of the Safety Advisory Group. Where other agencies may exercise their own statutory decision making authority, it is stressed that this is the determination of that authority and not the Safety Advisory Group.

The overall responsibility for the safety of persons at an event will lie with the event organiser, venue owner/operator and management team.

Members of the Safety Advisory Group must declare any material conflict of interest in relation to any matters put before the Group, prior to any discussion on that matter. Should this interest be considered prejudicial, then that person should consider withdrawing, to be replaced by an appropriate party agreed with the Group.

The Group will have arrangements to ensure that appropriate records of procedures and meetings are maintained. The lessons learned via the Group's processes and procedures will be applied for the benefit of all events within its area of responsibility.

WHEN SHOULD A SAFETY ADVISORY GROUP CONSIDER AN EVENT?

25.18 This has been an area where there have been high levels of inconsistency between SAGs. Some have determined, for instance, that they will only consider events on local authority land, whilst others will have a broad variety of criteria. Many will consider events where anticipated attendees will exceed a trigger figure. Whilst this has some merit, the levels of risk associated with an event may be greater with events that may not reach this 'trigger' (e.g. the profile of the audience is as important).

25.19 It is important to develop a protocol which will assist in this process and safeguard those making these decisions in term of their liabilities. Of course, referring an event to a SAG does not necessarily imply lengthy discussions at meetings, as there are 'smarter' ways of discharging the responsibilities. It is also, however, important to ensure that relatively small events involving low levels of risk are not subjected to unnecessary bureaucracy.

25.20 Determining whether or not to refer an event to a SAG does require a consistent approach. This should be based on a risk-based approach, and be determined by considering a combination of:

Numbers attending (at any one time);

Levels of risk with the event: and

Events of an unusual nature

The level of SAG input will appropriately be proportionate to the size, scale and risk of the event and/or activity involved. It may also be relevant to consider the cumulative consequences of multiple events within a local area.

Note: Many SAGs have developed protocols to assist in this process with some identified in the EPC guidance (Appendix 'C' - Examples of Good Practice).

25.21 Many events will fall outside of the regulatory arrangements, such as licensing, and consequently will not automatically come to the attention of a SAG. Members of a SAG should, however, ensure that there is a focal point at which details of events they become aware of can be collated.

25.22 It should then be possible for an event organiser to be contacted in order to obtain further detail on which to base the decision regarding referral to the SAG. This is relatively easily achieved and managed via local authority websites and on-line eForm facilities. Whilst in the first place this may only require basic event and organiser details it should be sufficient to inform SAG members whether more detailed information is required.

25.23 It will be important to encourage co-operation from event organisers to ensure timely notifications and availability of relevant documentation. It is important to seek to establish a culture whereby it is recognised that working with a SAG is a positive and beneficial experience. It should also be considered that some event organisers may also be working with tight timescales.

SAG PROCESSES AND MEETINGS

25.24 It should be considered that a robust SAG process will often provide scope for a 'lighter touch' licensing process, particularly where the co-operation of an event organiser is forthcoming. Whilst historically SAGs have

tended to review event arrangements in a meetings environment this can be time consuming and involve significant travel and cost.

25.25 Many have identified 'smarter' ways of working which can be more efficient and effective. This, however, is not to say that meetings do not have a part to play of course, particularly as they can help to foster relationships for future benefit.

25.26 There are now many technical options for the circulation of event documentation, such as FTP (File Transfer Protocol) sites, where use of these does not breach local protocols. It is, therefore, good practice to use such options to circulate documentation to SAG members.

25.27 The onus must be on SAG members to review the documentation and to raise any issues of concern, advice and so forth. If no such concerns are raised it will normally not be necessary to organise a meeting. Indeed, even where concerns have been raised, it may be possible to resolve them without the need for a meeting. Of course, this approach relies very much upon SAG members taking their own responsibilities seriously in this review process.

25.28 In many cases members would need to travel considerable distances if they were to attend a meeting. Event organisers and others may be dealing with extremely high volumes of events which could restrict their ability to attend all meetings. Consideration should, therefore, be given to the appropriate use of video/tele-conferencing as an alternative, thus enabling participation without attendance.

25.29 With members undoubtedly fulfilling many other responsibilities in addition to SAGs, it is important to ensure that meetings are held because they are necessary and that best use is made of the time.

25.30 At a time when organisations are experiencing considerable pressure on resources there will be inevitable implications in terms of the administrative arrangements of SAGs. This can be eased by event organisers and members each playing their part. It is normal, though not exclusive, for these administrative responsibilities to sit with the same organisation as the 'Chair, typically a local authority.

25.31 The responsibilities will need to reflect that of a 'conduit' for information, communication and co-ordination/distribution of documentation. Experience suggests that these requirements should not be underestimated. Additionally it is vital to ensure that an audit trail is maintained reflecting the SAG processes.

25.32 This will involve the preparation and circulation of agendas in advance of meetings, the referral processes of event proposals to SAGs, recording and circulation of resolutions/minutes of meetings and so forth.

25.33 The audit trail of a SAG is almost certainly the subject of public record and potential freedom of information application. Thus the SAG will need to have arrangements in place to ensure that appropriate records of procedures and meetings are maintained.

25.34 Lessons learned from the Group's processes and procedures will be applied for the benefit of all events within its area of responsibility. Whilst the debrief processes are best addressed through the planning and management groups, SAGs may benefit from the lessons learned and consider that 'wash up' meetings may be beneficial in some circumstances.

OPTIONS AND LIMITATIONS OF THE SAG

25.35 SAGs, as an entity, are advisory and have no bespoke powers, although some have tended to resort to the powers of their individual members if legislative or enforcement action is necessary. It is important to stress that a SAG is not an enforcement body and whether or not an individual agency determines to resort to use of its own powers must be a decision for that agency and not the SAG.

25.36 That said it would be naive to believe that a SAG would not discuss the powers of its members when faced with an event that causes concerns for public safety. The members should not, however, apply pressure on others to use powers they would not otherwise implement.

25.37 As the SAG has no legislative power, the number of options available to it is limited. That said, any advice offered by a SAG is likely to be highly influential and would certainly have significant influence on any legal process. Consequently most concerns can be, and are, generally resolved informally.

25.38 While the SAG may provide advice, the overall responsibility for the safety of persons at an event will lie with the event organiser, venue owner/operator and management team.

25.39 Members of the Safety Advisory Group must declare any material conflict of interest in relation to any matters put before the SAG, prior to any discussion on that matter. Should this interest be considered prejudicial, then that person should consider withdrawing, to be replaced by an appropriate party agreed with the Group

CONCLUSION

25.40 It is important to note that the vast majority of events in the UK involve high standards of safety management which, in no small part, can be attributed to the good practices which have developed within the existing SAG arrangements. It is also, however, important to stress that these SAG arrangements should not place an overly burdensome pressure on the many small relatively low risk events, which could include some of the many voluntary and community events.

25.41 The SAG process should not be seen as adversarial or something to be feared. Rather the intention is to portray SAGs as a mutually beneficial process which can be seen as a positive experience with a clear aim of ensuring the continuing high standards of safety for UK events.

This chapter is based on more comprehensive guidance developed by EPC (formerly The Emergency Planning College) 'The UK Good Practice Guide to Working in Safety Advisory Groups' available from The Stationery Office – (www.tsoshop.co.uk/bookstore.asp)

26. Dealing with Crime and Disorder

Details Last Updated: 07 June 2016



Please note: The information contained in this chapter sets out good practice that should be considered by event organisers. However, it is industry guidance and does not necessarily cover all of the aspects that the organisers need to consider for a particular event.

KEY POINTS:

Understand the risks and plan how to deal with them

Establish contact with the local police planning team through the SAG, where one exists

Involve the security, medical and welfare provider in planning

Access current intelligence from the Police Operation Gothic database to identify current crime risks and trends at events. This should be through your local police contacts

Check if the acts being booked have a record for attracting particular crimes or behaviour

Make sure attendees know where to buy tickets and what they can and cannot do on site

Know who is working on site and check they are legitimate

Record details of incidents

26.1 The vast majority of events take place without any crime or disorder related issues. However, wherever crowds gather there is always the risk of such incidents occurring. The very fact that events are a means for the public to relax, and perhaps experience new environments, can be attractive to both opportunists and mobile organised crime groups seeking to take advantage of that relaxed atmosphere and unfamiliar location.

26.2 Organisers need to consider a wide range of offences that could affect their event, from thefts and cyber-crime, to assaults (including sexual) and drug related offences. Acts of terrorism also need to be considered in the modern world.

26.3 Those attending events can also become victims of crime, even before their arrival at an event, with fake ticketing websites and counterfeit tickets sold through touts, in particular those that are sell-out events.

IN ADVANCE

26.4 Make it clear who the official ticket distribution channels are and warn people of the risks of purchasing tickets from unauthorised sources. If organisers come across unauthorised distributors, or potentially fake websites selling tickets, they should report them to the City of London Police Action Fraud Team (see www.actionfraud.police.uk).

26.5 Websites, tickets and other methods of event information should give clear instructions about what is unacceptable on site in terms of behaviour and also what items will not be permitted on the site. This will not only

include articles that are legally unlawful to possess but also 'legal highs', alcohol, flares, fire based wind lanterns, fireworks, glass etc. Warn customers of the consequences prior to entry(ie, that items will be confiscated and entry refused). It will lead to arguments if people arrive with picnics or food to be told only at the gate that they are not allowed entry!

26.6 Make sure arrangements are confirmed for the safe storage and disposal of unlawful and dangerous items that are confiscated or found. This should include arrangements with local police in relation to any drugs or weapons confiscations.

26.7 It is also worth noting that certain acts attract audiences that may wish to bring certain articles onto a site for use during the performance, such as flares, so ensure you know your audience profile and make any enhancements to your search regimes.

26.8 Make sure that the security provider is aware of what the prohibited articles look like, that staff at the entry points are aware what to look for and both are given sufficient time to put a suitable search regime in place along with any perimeter security measures.

ROLE OF THE POLICE

26.9 Organisers should establish contact with the local police planning team through the safety advisory group (SAG), where such a group exists. The role of the police at an event is primarily focussed on the prevention and detection of crime and bringing offenders to justice.

26.10 The national information and intelligence sharing process, known as Operation Gothic, can help to identify artists and bands that have been previously linked to organised crime or gang related activity in the UK and abroad. This is not to suggest the band are actually involved, just that their fans may be targeted by such criminal gangs simply due to the type of performance or stage lay out. This information can be used to predict issues that may occur in advance of the event taking place and may help the Police in providing proactive support to combat potential problems.

26.11 It is worth noting that although the police are keen to work with organisers in the planning stages of events, if there is a risk of crime or disorder occurring, they may not be able to share all the information and intelligence they have. Before any information sharing agreement can be put in place, organisers need to demonstrate an ability to understand how to store and manage the information before the police will be able to agree to this.

26.12 There is nothing to stop information being shared between other festival organisers and, in fact, this may be useful, particularly if a group or an individual has been ejected or refused entry from an event nearby.

26.13 Where organisers have requested the services of the police at an event, and they have agreed to attend, then they will be able to provide a more detailed information and intelligence picture as well as work with the event on both preventing and detecting criminal activity.

SECURITY

26.14 Ensure that a suitably experienced security provider is contracted with experience of the type of event being organised. They should have an understanding of how to deal with victims of crime, scene preservation and witnesses.

For questions relating to security providers see www.sia.homeoffice.gov.uk/Pages/home

TERRORISM

26.15 With the increasing threat of terrorism, organisers should consider the advice on the NaCTSO (National Counter Terrorism Security Office) website covering the current National Threat levels and security/vigilance issues. Click here for details: www.gov.uk/government/organisations/national-counter-terrorism-security-office

NaCTSO can also provide details of Project Argus (Stadia) and Project Griffin which are counter terrorism awareness training sessions run by local forces.

EJECTION POLICY

26.16 There should be a clear and publicised ejection policy for the event.

26.17 Ensure that you record the details of anyone ejected, along with the rationale for ejecting them. This is of particular importance if the individual could be considered to be vulnerable or ill. Consider where your duty of care extends to. If the ejection is because criminal behaviour is suspected, the local police should be given the details promptly.

REPORTING OF CRIMES

26.18 Clear systems should be in place to enable the public to report crimes or suspicious incidents. Very often, important information is not captured as people are unaware of where they should report such issues.

26.19 It can be helpful to have a standard pro-forma to ensure that all the relevant information is obtained so that the police can carry out an investigation. There should also be a system in place to cross-reference lost property with property that has been reported stolen. These issues should be discussed with the security and welfare providers as well as the local police. (See also [Welfare chapter](#)).

26.20 Those working on site should be provided with details of how to report any crimes or suspicious behaviour (including vehicles) either to a member of the organiser's staff or, possibly, via a confidential reporting phone-line system. This will enable prompt action to be taken if there is an issue.

26.21 Organisers should also consider ways of notifying the public of criminal activity.

VETTING STAFF

26.22 The vast majority of staff and volunteers on festival sites are there for legitimate reasons. However, on a few occasions organised crime groups have managed to infiltrate some of the contractors at festivals and events. To combat this, organisers are advised to register details of all those working (including volunteers) on their event site (with confirmation of identity, home address and photographic identification). Ideally, some form of accreditation system should be used.

26.23 In the current security climate, it is more important than ever that organisers are confident in those working on site, in whatever capacity that may be.

26.24 Ensure your security provider understands the importance of checking accreditation and is comfortable in challenging those without the necessary passes. Any incidents where individuals try to gain entry to areas they are not accredited to access should be reported immediately to supervising staff.

26.25 Event managers should also consider a higher level of vetting for higher risk roles such as those involving the management of found children and cash handling.

CCTV

26.26 If you are planning to use CCTV as a crowd management and crime prevention tool then ensure that you discuss where the cameras will be positioned and the operating methods with your security company and the local police. You should also discuss what type of imagery can be produced, how long the footage will be stored for and how access to that imagery can be obtained if required for any criminal investigations.

THEFTS

26.27 The most common crime at events is theft, ranging from pickpocketing and items being taken from tents, to employee pilfering. It is important to understand the risks in order to tackle these problems.

26.28 For example, the type of performances given by some artists can make it an easier environment for pickpockets. Likewise, a poorly designed campsite with insufficient stewarding, security provision and lighting, can make it easy for criminals to target this area, particularly on the opening nights when people are likely to have more cash on them and be unfamiliar with their neighbours in the campsite.

26.29 Consideration should be given to providing safe storage facilities for customers and enhanced security around ticket collection points, cash withdrawal facilities and any areas with high value assets.

CYBER CRIME

26.30 In addition to protecting your customers from on line ticket fraud, you should also consider the potential for cyber crime on your site. Some events have adopted cashless systems of payment which aims to reduce crime by encouraging individuals to bring less cash to events. The “contactless” payment methods are also increasing and as such technology aimed at stealing data from bank cards has also been developed. It is important that your security provider is aware of the types of device that may be used for this type of crime.

26.31 As this is a relatively new crime, it is important to discuss the potential for this issue to arise at your event with the local police planning team and to ensure that your customers are vigilant and aware of the risks. What confidence can your contact card machine supplier give that the system is secure, and whose liability is it if it isn't?

DRUGS AND OTHER PROHIBITED SUBSTANCES

26.32 As some of the audience may attempt to bring prohibited substances onto the site, or buy them during the event. It is important that organisers understand their legal responsibilities in this area and are able to demonstrate that they have addressed these issues if there is a risk of this occurring.

26.33 A thorough search regime and an opportunity to surrender prohibited articles during both site build and public access times, can help to reduce the problem.

26.34 There have been numerous deaths, illnesses and serious assaults as a result of high purity substances circulating at events, so it is important to consider what steps need to be taken if such substances do arrive on site, as well as how to deal with people who become ill as a result of consuming them.

26.35 If the police are on site, they may be able to test the substances and establish the purity levels. They may also be able to advise if dangerous substances are known to be in circulation at events and share images of these so that attendees can be warned of the dangers. It is vitally important that you liaise with your medical and welfare providers if you find such substances on site before giving the public any information. Also, consider what facilities you will need to provide to care for anyone who has consumed such a substance.

ALCOHOL

26.36 There is generally little disorder reported at festivals and events but organisers need to be aware that disorder is often caused by excess alcohol consumption. It is important to understand the licensing laws and ensure that bar staff and the Designated Premises Supervisor know their responsibilities under the Licensing Act. In addition, organisers need to understand the audience profile of the artists that have been booked and whether there is any history of disorder or alcohol problems with the crowds they attract.

26.37 Particular attention needs to be paid to any young or vulnerable people who may be having alcohol provided to them by older individuals or groups. Security should be informed of any such incidents to ensure the welfare of the young and vulnerable.

THE VULNERABLE

26.38 If children, young people or vulnerable adults are likely to be present, systems need to be put in place for safeguarding them should they become separated from their friends, carers or family. Consider also how to manage young people who may be dropped off with no responsible adult on site, this may sometimes be many

hours before the event making them vulnerable whilst still waiting to enter the site. This becomes increasingly more challenging if they are intoxicated before they enter the venue. Such trends are often predictable and responses do not need to be complex or expensive.

This is covered in more detail the [Welfare Handbook](#).

SEXUAL OFFENCES

26.39 Fortunately, sexual offences are still relatively rare at festivals and events. However, there has been an increase in reported sexual offences committed against women at festivals in Europe recently. It is therefore important to consider what processes need to be in place to keep people safe from sexual assaults as well to deal with the reporting and informing process should they occur. This should be discussed in advance with the security and welfare services on site. Security staff should be vigilante for signs of anyone who appears to be intoxicated and with people they may not have arrived with. Matters such as scene preservation and victim welfare must be considered as well as communication with the local police force.

26.40 Behaviour advice on websites etc should include the awareness that sexual assaults are unlikely but possible and can be aimed at men as well as women. Evidence shows that many incidents of sexual assault could be prevented by friends and 'bystanders' in tandem with stewards and security. People tend to go to festivals in groups so advice to attendees to ensure their whole group behaves well helps share the responsibility.

26.41 There are a range of charitable bodies that offer awareness and education literature specific to this type of crime which can be supplied to your event.

Again, reference should be made to the [Welfare Handbook](#).

DEBRIEFING

26.42 Once an event is over, it is worth holding a debrief with the local police, key stakeholders and security provider to review the safety and security at the event. This will ensure that any learning, both positive and developmental, is captured for all parties and it will also enable the police to share good practice - and any emerging crime trends - nationally which will assist other event organisers.