



Code of Practice
for

Safety

at Indoor Concerts

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ARNA FHOILSIÙ AG OIFIG AN tSOLÁTHAIR

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Note on the Preparation of the Code of Practice

1. On 24 October 1996, the Taoiseach announced in Dáil Éireann that the question of safety at indoor concerts would be examined and that a voluntary Code of Practice on the issue would be put in place.
2. A Working Group, chaired by the Department of the Environment and Local Government, was appointed by the Minister of State at the Department of the Environment to take responsibility for the preparation of the voluntary Code of Practice. The composition of the Working Group was as follows:-

Ray Dollard (Chairman),
Department of the Environment and Local Government.

Brian Power,
Department of the Environment and Local Government.

Dave Fennell,
Department of Justice, Equality and Law Reform.

Chief Supt. Dick Kelly,
Fitzgibbon Street Garda Station.

Frank Ahern,
Department of Health and Children.

Paddy Heffernan,
Department of Education and Science / Department of Tourism,
Sport and Recreation.

Ciáran McNamara, / Anna Gibney,
Dublin Corporation.

Aoife Nic Réamoinn (Secretary),
Department of the Environment and Local Government.

3. The Working Group gratefully acknowledges the assistance provided by all who contributed to the consultation exercise which was carried out during the preparation of this Code. The Working Group also acknowledges the assistance of Shirley Groarke, Michael Murphy and Mary Ryan (Department of the Environment and Local Government) and Capt. Brian Phelan in the preparation of this Code. (Photographs and diagram courtesy of The Point and Holohan Architects respectively).
4. Compliance with this Code of Practice does not, of itself, confer immunity from legal obligations on Promoters who organise events. The Department of the Environment and Local Government and the authors of the Code will not be held responsible for any loss, damage or injury arising in the context of the implementation of the guidance contained in this Code of Practice.

Nóta faoi Ullmhú an Chóid Chleachtais

1. Ar an 24 Deireadh Fómhair 1996, d'fhógair an Taoiseach i nDáil Éireann go scrúdófaí ceist na sábháilteachta ag ceolchoirmeacha taobh istigh, agus go gcuirfí Cód Cleachtais deonach ar bun.
2. Cheap an tAire Stáit sa Roinn Comhshaoil Meitheal, leis an Roinn Comhshaoil agus Rialtais Áitiúil sa chathaoir, le bheith i mbun an Cód Cleachtais deonach a ullmhú. Is mar a leanas a rinneadh ballraíocht an Meithle:

Ray Dollard (Cathaoirleach),
An Roinn Comhshaoil agus Rialtais Áitiúil.

Brian Power,
An Roinn Comhshaoil agus Rialtais Áitiúil.

Dave Fennell,
An Roinn Dlí agus Cirt, Comhionannais agus Athchóirithe Dlí.

Ardcheannfort Dick Kelly,
Stáisiún Gharda Shráid Mhic Ghiobáin.

Frank Ahern,
An Roinn Sláinte agus Leanaí.

Paddy Heffernan,
An Roinn Oideachais agus Eolaíochta / An Roinn Turasoireachta, Spóirt agus Áineasa.

Ciarán McNamara / Anna Gibney,
Bardas Átha Cliath.

Aoife Nic Réamoinn (Rúnaí),
An Roinn Comhshaoil agus Rialtais Áitiúil.

3. Cúitíonn an Mheitheal go buíoch lenar chur leis an chleachtadh comhairliúcháin a rinneadh agus an Cód seo á ullmhú. Chomh maith leis sin cúitíonn an Mheitheal cuidiú Shirley Groarke, Michael Murphy agus Mary Ryan (an Roinn Comhshaoil agus Rialtais Áitiúil) agus Capt. Brian Phelan leis an Chód seo a ullmhú. (Grianghrafanna agus léaráid le teann cúirtéise The Point agus Holohan Architects faoi seach.)
4. Ní thíolacann comhlíonadh an Chóid seo, uaidh féin, aon díolúine ó oibleagáidí dlí ar Thionscnóirí eagraithe ócáidí. Ní bheidh an Roinn Comhshaoil agus Rialtais Áitiúil, nó údair an Chóid, freagrach in aon chailteanas, díobháil nó dochar a tharlós i gcomhthéacs chur i bhfeidhm na treorach atá sa Chód Cleachtais seo.



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Introduction

- 1.1** Public entertainment has changed significantly in recent years. Changes cover such aspects as the physical structure of venues, differences in style of performance, technical innovation, and stage configurations. In parallel with these are changes in social behaviour as well as developments in the legal structures, and a growing assertion on the part of society that consumers are entitled to high standards of safety and that all those responsible should ensure that those standards are provided.
- 1.2** The aim of this Code of Practice is to help all involved in the organisation of indoor concerts to plan and manage events safely. The guidance contained in the Code is directed at a variety of interests particularly event promoters and technical and professional specialists employed in planning and running events. The advice will also be of assistance to the public authorities and the general public who have an interest in these events.
- 1.3** This Code, which is a voluntary Code, is the third in a series, two of which have already been published by the Department of Education and Science. These are the Code of Practice for Safety at Sports Grounds and the Code of Practice for Safety at Outdoor Pop Concerts. The parameters governing safety at indoor events are similar in many respects to those for outdoor events and, as such, this Code reflects the general principles of safety and the organisational parameters set out in the other Codes.
- 1.4** The guidance in this Code applies to indoor concerts. For this purpose, an indoor concert may be defined as an event, held indoors, where music is performed by an artist(s) before a live audience. Users will need to approach the guide on the basis of applying the guidance to suit the circumstances. The guidance is not however, intended to apply to the smaller type of event held in public houses, discotheques, night-clubs etc. Elements of the guidance may be found useful in planning and managing indoor events, other than concerts, where large numbers of persons may be present.
- 1.5** The safety of all those attending an indoor concert is the responsibility of the person in control of that event. The primary responsibility for the control of crowds and for ensuring the safety of persons attending an indoor concert rests with the person in control of the event. This responsibility arises from the common law duty of care owed by the person in control to those whom s/he has invited to participate in the event. The duty is owed to a full range of people participating in the event, from the audience, who may or may not have paid an admission charge, to the performers and persons working or assisting at the event. The question of assigning responsibility is one which should be addressed in each individual situation. Responsibilities should be clarified and agreed prior to an event; agreement should encompass every aspect of responsibility in relation to venue infrastructure and operational management. For the purpose of this Code the person with the primary responsibility for safety at indoor concerts is referred to as the Promoter.
- 1.6** A number of statutory provisions may apply in relation to indoor concerts and similar events and to venues in which events are held (see Chapter 14). The guidance in the Code in no way restricts or inhibits the right of statutory bodies to insist on certain conditions being met in relation to particular aspects in respect of which they may have a statutory role.

- 1.7 The guidance in the Code should be regarded as setting out the minimum functional requirements for the safe organisation and management of concerts and is applicable to a multiplicity of different venues and events. It does not set specific standards for particular venues or events. Promoters should consider whether further measures, over and above this guidance, will be needed, having regard to the nature of certain concerts.
- 1.8 The considerations involved in the safe organisation of indoor concerts comprise those of a largely physical nature (such as crowd control barriers, fire safety, structural safety and electrical installation), as well as management issues (such as event planning and management, crowd management and stewarding).
- 1.9 Crowd management (see Chapter 3) is central to safety at an indoor concert. The Promoter should ensure that a crowd management strategy is in place for each event. The crowd management strategy should identify and fully assess the risks associated with crowds and put in place all practicable measures to ensure the safety of those attending the event. Such measures include the provision of appropriate barrier systems, effective stewarding and communication arrangements. The type of accommodation (all-seated, standing, or mixed seating and standing) also has an important influence on the measures required.
- 1.10 The tendency for persons at stand-up concerts to crowd towards the stage has been identified as a matter of serious concern. In the interests of comfort and safety, seating represents the preferred way of accommodating people at a concert avoiding many of the risks associated with standing concerts. Where events are run at which persons may be standing, the particular risks associated with standing audiences must be fully assessed, and appropriate measures and safeguards taken to ensure public safety.



2.1 Introduction

Good planning and management are important to ensure the safe running of an indoor concert. Forward planning will enable anticipated problems to be identified and provision to be made for measures necessary to ensure the safety of the public. Planning requires evaluating the venue and the event. Criteria for assessing the suitability of a venue are outlined in Section 2.3; matters appertaining to event planning are considered in Section 2.4. In addition, any consultation with relevant statutory authorities and other interests should be undertaken in good time in advance of an event.

Planning should begin as early as possible before an event. In the case of new venues and major events, planning may need to commence up to 6 months or so beforehand.

2.2 Consultation

The extent of any consultation which may be undertaken with statutory authorities and other interests (such as local residents, voluntary organisations etc.) depends on the proposed event. The statutory authorities would be able to advise on foot of their roles as outlined in Sections 2.12 to 2.14, for example, on the appropriate level of emergency medical services and public health matters (Health Boards), on matters such as public order, security, traffic management and policing services (Garda Síochána), on fire safety and structural aspects (local authorities), and on access for emergency vehicles.

The type of details for the purposes of consultation could include matters such as the time of the event, duration, age group and size of expected audience, artists and nature of performance, event safety strategy (including sketch of venue and surrounding area), arrangements for guests, any restrictions on entry, car parking facilities, etc. A record should be maintained as regards any contacts and consultations made by the Promoter throughout the planning stage.

2.3 Assessment of Venue

The assessment of the venue will require evaluation of a wide range of relevant issues including the following:

- the accommodation available, the overall occupant capacity and its disposition within the venue;
- crowd control facilities and suitability for crowd management purposes;
- fire safety provisions (including means of escape);
- the suitability of the structure, including any temporary structures;
- the adequacy of the electrical installations (including suitability for additional temporary installations), emergency power and lighting;
- the provision of public address, communication and monitoring facilities;
- heating and ventilation, sanitary and other facilities; and
- any impact that temporary structures or installations may have on the foregoing.

2.4 Event Planning

The event planning should address all relevant safety issues, including all such matters that could have a bearing on the holding of a particular event. These would include the following:

- (i) an event safety strategy (see Section 2.5);
- (ii) the event management structure (see Section 2.6), including the appointment of an event controller, event safety officer and chief steward;
- (iii) crowd management arrangements (see Chapters 3, 4 and 5) including the following:
 - the category of event and the nature of the audience (see Section 3.10);
 - the type of accommodation (whether all seated, standing or a combination of seating and standing);
 - occupant capacity (see Section 3.11);
 - crowd control facilities, including barriers (see Chapter 4);
 - stewarding arrangements, including crowd monitoring (see Chapter 5);
- (iv) fire safety precautions for the event, including fire and evacuation procedures (see Chapter 6);
- (v) structural safety matters, including temporary seating and other temporary structures (see Chapter 7);
- (vi) electrical requirements and installations for the event (see Chapter 8);
- (vii) arrangements for the provision of emergency medical services (see Chapter 9);
- (viii) sanitary accommodation, drinking water and ventilation (see Chapter 10);
- (ix) communications for the event (see Chapter 11);
- (x) preparation of a venue evacuation plan (see Chapter 12);
- (xi) provisions made for persons with disabilities (see Section 13.1); and
- (xii) any special provisions for the event.

While all the matters outlined above need to be taken into consideration in event planning, the degree to which provision is made for these will depend on the particular venue and the specific event. In addition, especially for larger venues/events, certain other matters may need to be addressed at event planning stage, e.g. car parking and marshalling, public transport facilities, etc. Issues that could arise for consideration are listed in Paragraph 5.13 of the Code of Practice for Safety at Outdoor Pop Concerts, though this is not an exhaustive list. Other matters or activities may need to be addressed where appropriate (for example, road openings in the vicinity by statutory undertakers,

the adequacy of local infrastructure such as street lighting and access roads, one-way systems in the vicinity etc.).

2.5 Event Safety Strategy

The Promoter should prepare a written strategy for the safety of persons who attend indoor concerts. The event safety strategy should be made known to and understood by all staff and workers who may be involved in the running of concerts. It should be noted that this strategy is not a substitute for, and is separate from, the obligation of an employer to prepare a safety statement for employees in accordance with the provisions of the Safety, Health and Welfare at Work Act, 1989, and associated regulations.

The event safety strategy should identify the safety objectives and the means of achieving these and should be kept under review by management and revised as necessary. The strategy should incorporate the following:

- (i) a statement of the management structure and procedures employed for ensuring the safety of persons attending the event, including event planning, post-event review etc. (see Sections 2.6 to 2.11);
- (ii) crowd management strategy and arrangements, including stewarding and crowd control facilities (see Chapters 3, 4 and 5);
- (iii) fire safety strategy, including plans of premises and fire safety register (see Chapter 6);
- (iv) structural safety, including structural assessment, design and verification/certification (see Chapter 7)
- (v) electrical safety statement (see Chapter 8);
- (vi) emergency medical services provision, including operational plan (see Chapter 9);
- (vii) communication arrangements including Control Centre (see Chapter 11);
- (viii) venue evacuation plan (see Chapter 12);
- (ix) access routes for emergency vehicles (see Sections 6.17, 6.18, 9.9, 12.3, 13.2 and 13.4);
- (x) record maintenance, including contacts and consultations, admissions, maintenance of fire safety systems, injuries, incidents and accidents (see Sections 2.2, 3.12, 6.12, 6.19 and 9.8);
- (xi) sketch of the venue and surrounding area; and
- (xii) monitoring and review of the event safety strategy.

2.6 Event Management Structure

A good management structure should be in place with established procedures for identifying and anticipating problems and for monitoring and controlling the event. The



type of structure will depend on the venue and may also vary from event to event. A recommended management structure showing linkages within management which would fit the needs of indoor concerts generally is set out in Figure 2.6. The Event Safety Officer and Chief Steward should maintain contact with and report directly to the Event Controller.

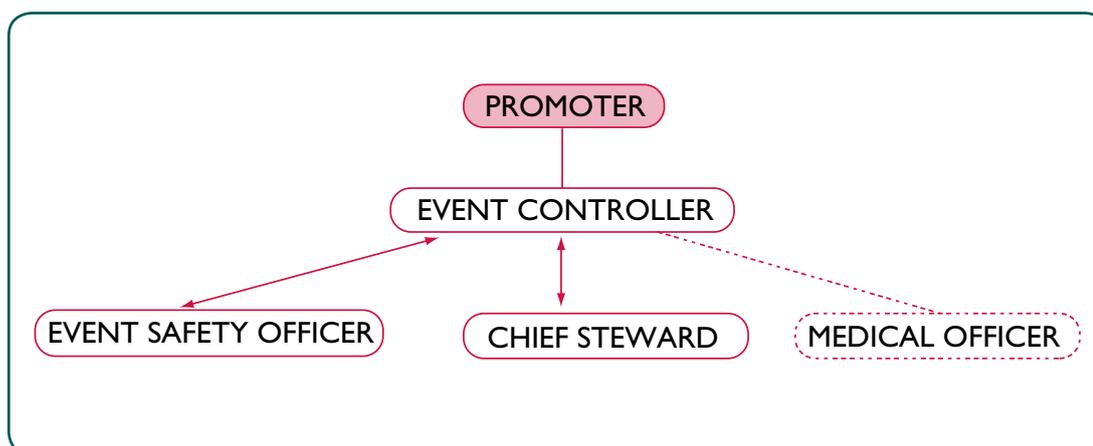


Figure 2.6 Event Management Structure

The Medical Officer (i.e. the senior officer of the organisation(s) providing emergency medical services for the Promoter) should maintain contact during the event to advise the Event Controller of any serious casualty or other significant cases that require medical treatment.

2.7 Event Controller

The Promoter should appoint as Event Controller a person with sufficient competence, status and authority to take full responsibility for all matters related to the management of an event. Among the responsibilities of the Event Controller are the following:

- (i) having overall responsibility for the management of the event;
- (ii) participation in planning meetings, including meetings with relevant authorities, such as the Garda Síochána, local authority, Health Board, etc.;
- (iii) appointing a Chief Steward, assessing the number of stewards required to manage

the event (see Section 5.4), and ensuring that familiarisation training and rehearsal for stewards is provided as appropriate;

- (iv) ensuring that the event is staffed by a sufficient number of competent and trained persons;
- (v) ensuring that effective command, communication and co-ordination systems are in place;
- (vi) ensuring that adequate measures are in place for the safety of persons attending;
- (vii) ensuring that the event safety strategy (see Section 2.5) is made available to staff and other workers, as appropriate;
- (viii) ensuring adequate response measures are taken as necessary; and
- (ix) conducting post-event reviews as may be necessary.

A Deputy Event Controller should be appointed to act in place of the Controller whenever required. The Controller, or Deputy, should operate from a central location at the venue where the event is held. This, in the case of larger venues, could be a dedicated Control Centre; at smaller venues, a room such as a manager's office, properly equipped, could suffice for practical purposes (see Section 11.2). All staff should be aware of the Control Centre location, know who the Event Controller and his/her Deputy are, and be familiar with the chain of command/lines of communication. The Event Controller or Deputy should make themselves known to the senior officer of the Garda Síochána who may be on duty at the event.

2.8 Event Safety Officer

The Promoter should appoint as Event Safety Officer, a person of sufficient status, experience and competence to take particular responsibility for the safety of the event; s/he would maintain contact with and report directly to the Event Controller. The Event Safety Officer should:

- (i) act as safety co-ordinator in relation to safety matters and have overall responsibility for all aspects of safety;
- (ii) be present at all planning and post-event review meetings;
- (iii) ensure that pre-event checks are carried out (see Section 2.10);
- (iv) be present during the event to monitor and manage all the safety arrangements including crowd control measures, fire safety and rescue tactics for persons in distress;
- (v) liaise with the Chief Steward and Medical Officer and with the emergency services, where necessary; and
- (vi) advise the Event Controller on the initiation of emergency procedures where required.

The Event Safety Officer should normally be responsible for all aspects of fire safety (see Chapter 6). However, in certain venues a dedicated Fire Safety Officer may be appointed



to take charge of fire safety matters for the event and report directly to the Event Safety Officer. In these venues, the Fire Safety Officer should be present at pre-event meetings, during the event and at post-event review meetings. The Fire Safety Officer should be in a position to advise the Event Safety Officer on the initiation of emergency procedures. In addition to fire safety management duties appropriate to the event, s/he should be familiar with the active and passive measures outlined in the fire safety strategy statement (see Section 6.22).

2.9 Chief Steward

The Chief Steward will have overall responsibility for stewarding both inside and outside the venue. The Chief Steward should maintain contact with and report directly to the Event Controller. Direct and effective communication (such as radio systems) should be in use for this purpose. From the time of commencement of the performance the Chief Steward should remain on duty. The duties of the Chief Steward include:

- deploying and controlling stewards as necessary to deal with situations as they arise;
- ensuring that stewards are positioned at all exits, entrances, and key points where control is most needed, particularly in the front of stage area and at all barriers;
- co-ordinating the duties of all stewards, including supervisory stewards and stewards from outside firms;
- being competent to recognise critical crowd conditions, signs of crowd distress and crowd dynamics;
- knowing the layout of the venue, where facilities are located and being fully familiar with the means of escape and evacuation procedures in the event of an emergency;
- ensuring that radios used for communication among stewards (including stewards from outside firms) are compatible; and
- ensuring that details of all stewards (including stewards from outside firms) are recorded in the steward register (see Section 5.3).

2.10 Pre-Event Checks

All emergency facilities and provisions (for fire and other hazards) should be checked before the audience enters the venue for any event (see Section 2.8). Checks should ensure that:

- all escape routes and exits are free from obstruction, unlocked, easily opened and immediately available for use (see Section 6.17);
- emergency lighting including exit and directional signs are in working order (see Section 8.4);
- the public address system for use in emergencies is in working order and can be heard in all parts of the venue (see Sections 8.5 and 11.3);

- any other communication system intended for use in emergencies functions properly;
- fire detection and alarms systems and fire-fighting equipment are in good working order (see Sections 6.12 and 6.8); and
- all temporary structures are checked (see Section 7.6).

2.11 Post-Event Review

The Promoter should ensure that a post-event review is carried out as necessary to consider how effective in practice were safety arrangements and procedures and whether any lessons have been learnt which would help to identify any improvements needed in these arrangements and procedures. The review should involve the Event Controller, Event Safety Officer (and Fire Safety Officer, where there is one), Chief Steward and Medical Officer. Other staff on duty at the event might also be called to assist with the review, as appropriate. The statutory authorities concerned should be given the opportunity to participate in the post-event meetings.

The post-event review should always be carried out after once-off or periodic events. For venues in regular use, reviews might be carried out periodically, and immediately after particular events involving crowd difficulty, injuries other than minor injuries, etc. The review should assess any problems that arose such as accidents and incidents, injuries to the public, any problems with crowd flows and management such as overcrowding, crowd sways, unacceptable behaviour, any difficulties with venue facilities etc. Particular attention should, of course, be paid to the causes of such problems and the effectiveness and speed of the response.

Any reports by staff on matters of concern should be considered and the overall performance with respect to established procedures and arrangements assessed on the basis of all available information. Any improvements in procedures or arrangements for ensuring the safety of the public which are considered necessary as a result of a post-event review should be written into the event safety strategy as appropriate (see Section 2.5) and should be put into effect for subsequent events.

2.12 Role of the Garda Síochána

The role of the Garda Síochána with respect to indoor concerts relates to the following matters in particular:

- (i) responsibility for security, public order, and for traffic management outside the venue;
- (ii) the formulation as necessary of an operational plan of action catering for the provision of the necessary personnel and equipment to police the event; the plan should include arrangements for policing outside the venue and on main routes used by patrons travelling to and from the event;
- (iii) the preparation of a traffic management plan as necessary (see Section 13.2);



- (iv) the provision of services inside the venue as requested by and agreed in advance with the Promoter to assist the latter in his/her primary responsibility for ensuring the safety of those attending the event;
- (v) being prepared and responding as appropriate in the event of an emergency; and
- (vi) inspection of the venue under the authority of any statutory licence that is attached to the premises and monitoring and enforcing relevant statutory provisions.

Where the Gardaí are requested by the Promoter to provide services, paragraph (iv) above, the Garda authorities may give permission for this in accordance with the relevant regulations applicable to the Garda Síochána under the description “Duty of a Non-Public Nature”. Duties in this regard will include detecting and preventing crime, policing inside the venue, assisting stewards in their duties, and enforcing any licence applying to the venue. If there is disagreement on the numbers and disposition of Gardaí required, the views of the local Superintendent will prevail.

2.13 Role of the Local Authority

Local authorities have certain powers which they may exercise in relation to the following aspects in particular:

- (i) the operation of developmental, fire safety, building and other structural controls in accordance with relevant statutory provisions;
- (ii) monitoring and enforcing other statutory controls including pollution controls, controls on littering, etc.;
- (iii) traffic management as necessary with the Garda Síochána; and
- (iv) being prepared and responding as appropriate in the event of a fire or other emergency.

2.14 Role of the Health Board

Health Boards have a role in relation to the following:

- (i) maintaining normal emergency medical and ambulance services to the general public resident in the local area;
- (ii) offering advice and guidance as to the appropriate level of emergency medical services (EMS) at an indoor concert;
- (iii) providing emergency medical services at a concert where requested;
- (iv) being prepared and responding as appropriate in the event of an emergency; and
- (v) offering advice on health matters, including food hygiene, and monitoring and enforcing relevant statutory regulations.



3.1 Introduction

Effective crowd management is an essential component of the event safety strategy for indoor concerts. Crowd management includes the planning and supervision of the assembly and movement of people. The primary objectives of crowd management at a concert are:

- the avoidance of obstructions or sudden interruptions to flow patterns, whether entering, exiting or circulating within the venue, where persons in a crowd may be at risk of injury;
- the avoidance of conditions arising where persons within a crowd may be subject to unnecessary distress or risk of injury; and
- the avoidance of audience behaviour or group movement within a crowd which could lead to persons being subject to unnecessary distress or risk of injury.

The Promoter, and the Event Controller acting on his/her behalf (see Section 2.7), has overall responsibility for crowd management and must ensure that all practicable steps are taken to ensure safety. For every event, the crowd safety risks should be fully assessed and appropriate crowd control measures put in place. The general guidance in this Chapter will assist in determining the levels of controls that are necessary. The event safety strategy (see Section 2.5) should incorporate a statement on crowd management strategy (see Section 3.7). The crowd management strategy should address all the relevant crowd safety issues, including crowd control measures.

3.2 Crowd Control Measures

Crowd control measures form part of the crowd management strategy and include items such as crowd control barriers (see Chapter 4), stewarding (see Chapter 5) and communications (see Chapter 11).

The extent of the crowd control measures required is influenced to a large degree by the type of event and the characteristics of the anticipated audience. Concert audiences can generally be classified into broad categories (see Section 3.10) which may assist in drawing up the crowd control measures. The nature of the accommodation also has an important influence on the measures required.

The suitability of the proposed accommodation for the anticipated audience is an important consideration and, in general, a standing audience requires a higher level of control than a seated audience. Accommodation may be all-seated (see Section 3.3), standing (see Section 3.4), or a combination of seating and standing (see Section 3.5), depending on the event and the venue. In all cases the risks to public safety must be fully identified, assessed and addressed in the crowd management strategy. The event should only proceed, in its proposed format, where the analysis shows that public safety can be assured.

Crowd control measures, by their nature, will involve restrictions as to where and how people in an audience are to be accommodated and will impose necessary restrictions on movement between different parts of the venue. Within a particular audience, a number of different audience types may be present at different times and in different locations, and the crowd control measures need to be sufficiently flexible to be able to cater for these variations. In general, crowd control measures should be anticipated but there may also be

occasions when it will be necessary to respond to unexpected behaviour which, if not addressed effectively, could lead to unsafe conditions arising.

3.3 Seated Audiences

In the interests of comfort and safety, seating represents the preferred way of accommodating people at a concert. Seating may be permanent or temporary fixed seating, provided it is properly laid out and adequately secured (see Section 6.10). Individual seats should be assigned at the admission area or at the point of sale of tickets. It is important to ensure that the aisles and gangways are kept clear at all times during the performance (see Section 6.17).

3.4 Standing Audiences

A standing crowd presents particular risks and crowd management difficulties which must be carefully assessed. The suitability of standing arrangements must be carefully considered sufficiently in advance of the event being publicised.

Standing concerts require a high level of crowd control due to the complex nature of the issues involved. The behaviour of different crowds (see Sections 3.8 and 3.9) and experience

gained from similar events in the past are important considerations in deriving an appropriate crowd management strategy. By the nature of a standing audience, the density (in terms of available floor space per person) is a critical crowd safety consideration. While this is dependent on a number of complex issues, including occupant capacity (see Section 3.11), large variations occur within any audience, with the areas close to the performance being the most dense.

Crowd control barrier systems (see Chapter 4) are normally employed to reduce the potential for problems that can arise within a standing audience. However, these measures may not be adequate to ensure the comfort and safety of young persons. For this reason it is considered that seated accommodation is generally more suitable for persons under 16 years of age.

For a standing audience, the floor of the accommodation should generally be flat and there should be no steps or any other unprotected changes in floor level which could give rise to a hazard.

3.5 Mixed Seating and Standing

For some concerts, a combination of fixed seating (whether permanent or temporary) may be provided. The criteria indicated above for seated or standing audiences are relevant to these situations. Crowd control problems may also arise where members of an audience are free to move from seating to standing areas. In these situations, it is necessary to restrict movement between seating and standing areas to ensure control over occupancy and densities in the standing areas.

3.6 Admission of Children

For reasons of safety, it may not be appropriate to allow children to attend an indoor concert. In general, where children under the age of 14 are admitted, they should be accommodated in fixed seating and accompanied by a parent or other adult guardian.

The particular risks associated with the attendance of children should be carefully considered before an event is scheduled and the suitability of events for children and the requirement to be accompanied by a parent or guardian should be clearly advertised in



advance.

3.7 Crowd Management Strategy

The event safety strategy (see Section 2.5) should incorporate a statement on crowd management strategy. This statement is a review and evaluation of the crowd control measures necessary to achieve the crowd management objectives for the event (see Section 3.1). The statement should deal with all the relevant issues, including those related to crowd behaviour (see Section 3.8) and the nature of the performance. The broad categories of event types proposed in Section 3.10 may assist the planning process but each event requires individual assessment and evaluation of the relevant criteria.

3.8 Crowd Behaviour

The assessment of crowd behaviour at a concert is a complex subject and includes consideration of human psychology in addition to the physical environment of the venue. Different types of crowds and crowd behaviour patterns can be identified but, in general, people in a crowd tend to respond in a rational manner to their surroundings and to the information available to them. Pushing or shoving within an audience could arise from the desire to get closer to the performance, and people at the back may not be fully aware of difficulties that this may be causing to persons to the front.

With large crowds, there is potential for conditions to arise, or incidents to occur, where there is increased risk of injuries. A model, referred to by the acronym **FIST** (Fruin, 1993), has been developed from the experience of past incidents and is useful in understanding the problems associated with large crowds. **FIST** is derived from four elements, which are considered to be present in most crowd incidents. These are the **Force** of the crowd, or crowd pressure, the **Information** upon which the crowd reacts (whether real, perceived, true or false), the physical **Space** involved, and the **Time** or duration of the incident. If there is an insufficient level of crowd control, pressures and uncontrolled movements within a crowd can be sufficient to result in conditions developing where there is a danger of personal injury. Crushing causes severe personal distress, and falling under such circumstances can significantly increase the risk of injury. The risk of such critical conditions or incidents arising should be fully assessed and all practicable measures put in place to prevent their occurrence.

3.9 Audience Participation

Audience participation is an inherent part of any concert. However, such participation must be limited to that which will not constitute or result in a threat to the safety of those attending.

Certain activities by individuals or groups in an audience can put others at increased risk of injury. These mainly relate to a standing audience and include shoving and pushing, “crowd surfing”, “crowd diving” and “crowd moshing”. With a seated audience serious problems can also arise from movement within seat-ways, standing in aisles or standing on seats. The attention of the audience should be drawn to activities which are not acceptable and appropriate preventative measures should be put in place. Where such activities occur, these should normally result in removal of offenders, without re-admission.

The performance should not contain any material or activity which could over-excite the audience or endanger safety. Performers should remain within the stage area throughout the performance and should not incite or encourage any dangerous or unacceptable behaviour on the part of the audience.



3.10 Category of Event

The crowd control measures required to be put in place for effective crowd management is determined to a large extent by the type of concert and the expected audience profile. To assist in drawing up an appropriate crowd management strategy, it may be useful to relate the proposed event to a range of broad general categories of event types such as those proposed in Table 3.10 below. This table is indicative only, and each event requires individual assessment. Alternative, additional or further sub-division of the categories in Table 3.10 may also be considered. Having decided on the event category, the management strategy can then be developed by reference to other guidance in this code.

TABLE 3.10 CATEGORY OF EVENT

Category	Audience Profile	Type of Concert
A	Mainly young adults; potential for disruptive behaviour; high levels of crowd control required.	Heavy metal, grunge, rap, rock.
B	Mainly young adults, or predominantly single gender; high excitement likely; high levels of crowd control required.	Teen pop, dance.
C	High proportion of audience are children; high level of crowd control and supervision required.	Any.
D	Adults; responsible participation expected; little likelihood of crowd control difficulties.	Popular, country, folk, classical, etc.

3.11 Occupant Capacity

The overall occupant capacity for a venue is determined by a number of factors related to the type of event, crowd control measures, space utilisation and limitations on means of escape. Limitations also apply to the disposition of this capacity in relation to storeys, floor sections, balconies, sectors and other physical constraints related to the venue and/or event. The overall or total occupant capacity may therefore be derived from a number of different components, each of which has its own capacity limitation.

The capacity of a part of a building is usually related to the net occupied floor area and the type of accommodation. For a concert, this relates to individual seating or standing areas. The number of persons occupying an area is usually calculated, for design purposes, by dividing the floor area by an appropriate figure referred to as the occupancy load factor. All areas required for means of escape and circulation such as aisles, gangways, stairways,

etc. should be excluded from the calculation.

Individual seating provides control on the occupant capacity for a seated audience and there are constraints on the layout of seating which are related to means of escape (see Section 6.10). For a standing audience, the crowd control issues discussed in the previous sections require limitations on occupant capacity which are additional to those related solely to means of escape. While each event requires individual assessment of the crowd control issues involved, indicative guidance on occupancy load factors for concerts are contained in Table 3.11 below.

Table 3.11 should be read in conjunction with Chapter 4 which deals with the provision of crowd control measures for concerts. Occupancy load factors and occupant capacities are critical considerations in the risk assessment process which is an essential element in determining the extent of the crowd control measures required for an event.

The occupant capacity, calculated by applying the appropriate occupancy load factor to the occupied floor area, represents the maximum number that should be accommodated in that space. The overall occupant capacity represents the maximum number to be accommodated in the premises. In all cases, the means of escape provisions (see Section 6.5) must be adequate both for the overall occupant capacity and for the capacity of each of the different areas.

TABLE 3.11 OCCUPANCY LOAD FACTORS

Description of Floor Space Usage ^(see Note 1)	Occupancy Load Factor (m ² per person)
Individual seating ^(see Note 2)	0.5
Dance floor area	0.5
Standing audience area :	
(a) with front of stage barrier only	0.5 ^(see Note 3)
(b) “pit” area between front of stage barrier and secondary barrier, subject to maximum occupant capacity (see Section 4.2)	0.25 ^(see Note 3)
(c) with secondary barrier other than “pit” area	0.5 ^(see Note 3)
<p>Note 1 For other uses refer to BS 5588: Part 6: 1991 Code of practice for places of assembly</p> <p>2 Alternatively, actual number of seats may be used to determine occupant capacity for seated audience (see also Section 6.10).</p> <p>3 Subject to risk assessment process (see Section 4.2).</p>	



3.12 Overcrowding and Admissions

It is essential that the overall occupant capacity for the venue and the capacities of individual areas are not exceeded. Suitable verification mechanisms and other controls must be in place in this regard.

Admission should be by ticket only, and the sum of tickets sold and complimentary tickets should not exceed the overall occupant capacity, (see Section 13.2 as regards ticket office).

The Event Safety Officer should be kept informed of the number of persons being admitted. This information is also of benefit in establishing the number of persons that still have to enter the venue at any given time. In general, persons who leave the venue should not be re-admitted.

Problems may occur where there is insufficient control over the movement of people between different parts of a venue. While the overall occupant capacity may not be exceeded, serious localised overcrowding can occur in particular areas, with consequential serious risk to the safety of persons in those sections. Adequate control measures should therefore be provided to protect against localised overcrowding. One such measure of controlling numbers is to issue a fixed number of colour-coded wrist bands to the audience (one colour for each area) corresponding to the capacity of each area.

Recommendations with respect to forged tickets and the activities of ticket touts contained in Paragraphs 8.14 and 8.15 of the Code of Practice for Safety at Sports Grounds may also be relevant and should be considered by the Promoter.

3.13 Queuing

Problems may occur at entry points if large numbers of people are queuing to gain admission or if they have been queuing for a long time in inclement weather. Potential problems may be alleviated by measures such as:

- opening entry points in advance of published opening times (opening times should be publicised and notified on tickets); and
- staggering admission by providing early supporting acts.

Once a queue starts to move it should continue moving in a steady fashion. The number of access points and crowd handling facilities, such as ticket collection and security checking, should be adequate to avoid delays. Adequate stewarding should be provided to ensure order in the queues, an even flow into the venue, and to prevent any localised overcrowding arising. Delays and reasons for them should be effectively communicated to persons in the queue using a megaphone, loud hailer or other suitable means.

Suitable sanitary accommodation should be provided, as far as is practicable, for people who may be queuing for a considerable length of time. Litter which may be generated by queues should be collected.

Queuing within the venue may occur immediately inside the entry points, while awaiting accommodation, or during intervals. Foyer areas should not be allowed to become over crowded before the performance starts, or during intervals.



Severe queuing problems for sanitary accommodation may occur at times. Separate entrance and exit doors from these areas, creating a one-way system, are desirable to obviate possible overcrowding, and are essential where numbers are large.

Overcrowding should not be allowed to develop in the vicinity of bars, food stalls or concessionary units. These facilities should be located in suitable areas where they will not restrict or obstruct movement within the venue.

3.14 Video Screens

Video screens used to enhance audience viewing of the performance can also assist crowd control and management. Relaying the performance in this way may reduce the tendency for those at the back to push forward towards the stage and may encourage more uniform distribution of persons within the available floor area.

Video screens can be effective in providing information and communicating appropriate safety measures to an audience. Safety messages include pre-performance instructions on emergency procedures and the location of emergency exits, etc. Crowd control messages related to the behaviour code and prohibited activities could also be communicated in this way (see Sections 6.16, 11.3 and 12.4).





4.1 Introduction

Chapter 3 provides guidance on crowd control measures, which are required as part of the crowd management strategy at a concert. Crowd control barriers form an essential part of these control measures.

Crowd control barriers may be used for several purposes, including the following:

- restricting access to certain areas;
- controlling occupant capacity;
- preventing crowd movement towards the stage;
- preventing access to the stage and other structures;
- facilitating queuing; and
- security screening.

Barrier systems for the purpose of crowd control should be suitable for their intended purpose and should be such that they will not contribute to injuries resulting from close contact with a barrier or where it is necessary for persons in distress to be lifted across a barrier.

Barriers are subject to loading resulting from crowd pressure. They should be designed to withstand appropriate horizontal and longitudinal loads and account should also be taken of the dynamic nature of the loading induced by crowd movement. Guidance on the design and construction of crowd control barriers is contained in Section 4.5.

4.2 Front of Stage Barrier

In general, a front of stage barrier is required except where the assessment of the crowd control risks may determine that a front of stage barrier is not necessary. With a standing audience, pressure from the crowd is generally greatest at or near the front of stage area.

Where persons are tightly packed together and where this is combined with surging or swaying motion, the resulting dynamic loading may be significant. In these situations, a properly designed and constructed front of stage barrier, capable of safely withstanding crowd induced loading is essential. The potential for such crowd control difficulties can be related to the category of event. Categories A and B in Table 3.10 (see Chapter 3) represent the highest risk potential in this regard.

With reduced occupancy load factor (m^2 floor area per person), which represents an increased density of people, individual movement within the crowd may become severely restricted or impossible. Where conditions develop such that the occupancy load factor is below 0.15 m^2 , dangerous conditions can arise, especially with group movement or crowd surges, where shock waves may be propagated through the crowd. All practicable measures should be taken to ensure that these situations do not occur.

Table 3.11 (see Chapter 3) provides guidance on occupancy load factors for standing audiences. These average values are calculated by dividing the net floor area by the number of persons in the occupied space. However, average occupancy load factors may not prevent localised conditions where lower actual values occur.

Front of Stage Barrier



It is essential that the risks associated with standing audiences, taking all relevant crowd control factors into account, are fully assessed and appropriate preventative measures put in place. Occupant capacities and occupancy load factors are critical considerations in this regard. The greater the occupant capacity of a standing audience, the greater the potential for localised overcrowding.

In some situations, it may be appropriate to employ occupancy load factors which exceed the values in Table 3.11, thereby limiting occupant capacities. Occupancy load factors which are lower than the values in Table 3.11 should only be considered where the risk assessment can establish that unsafe conditions, as described in the paragraphs above, will not occur.

Depending on the size of the venue, the category of the event and other factors outlined below, a secondary barrier (see Section 4.3) may be required to restrict the number of persons in the front of stage area.

The area between the front of stage barrier and the secondary barrier is sometimes referred to as the “pit” where the number is strictly controlled by the use of colour-coded wrist bands or other suitable measures. The available floor area within the “pit” (within the stage sight-lines) should ideally be fully occupied, but the number of persons in this area should be such that the average occupancy load factor is not less than 0.25 m² per person. The appropriate maximum occupant capacity for the “pit” area will depend on the event and the venue itself, taking all relevant risk factors into account.

Factors to be considered in determining the numbers to be accommodated in the front of stage area, the need for a secondary barrier, and the number to be accommodated in the “pit” area (where applicable) include the following:

- nature of the event and audience profile;
- width of the stage and audience sight-lines to the stage;
- floor areas of the accommodation and occupancy load factors;
- position (including distance from stage) of the sound mixing station;
- depth of the crowd from the front of stage barrier;
- availability of side access routes to the front;
- location of seating (permanent and/or temporary); and
- control of movement between sections of the venue.

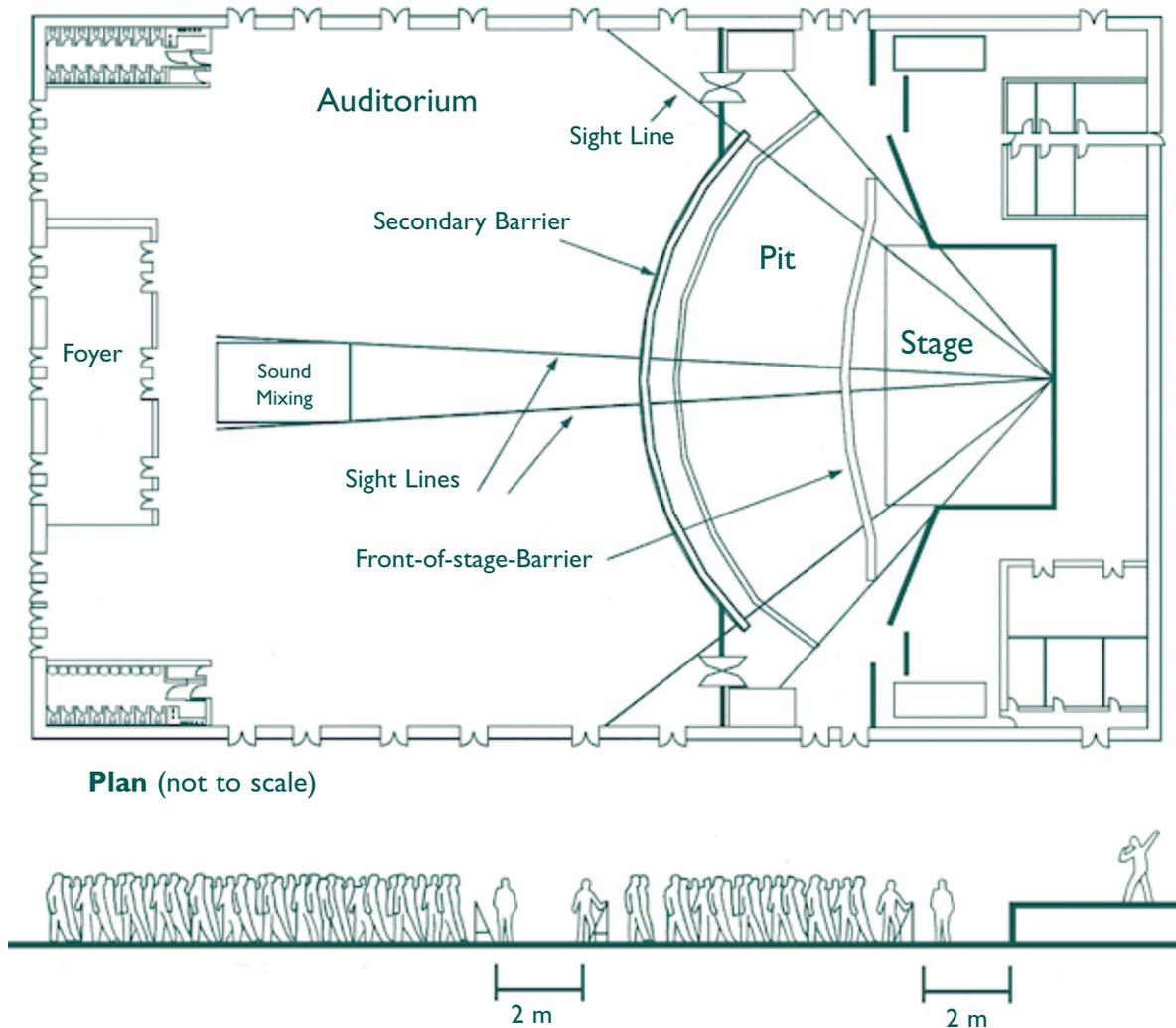
The front of stage barrier should extend the full width of the stage. The barrier should generally be slightly convex (outward from the stage), but in some situations a straight barrier may be adequate. A curved barrier can provide safety benefits such as dissipating crowd movement away from the centre and assisting means of escape. Guidance on the construction of barriers is contained in Section 4.5 below.

A concert held “in the round” with a standing audience requires special arrangements for the front of stage working area. An unobstructed escape corridor should be provided so that persons in distress can be taken over the barrier and be led away from the stage; care must be taken to avoid creating areas where people may be trapped between the escape corridor and the barrier.

Figure 4.2 shows an example of a standing audience configuration with front of stage and secondary barriers.



Figure 4.2 Standing Audience Configuration with Front Stage and Secondary Barrier



Section showing stage, front-of stage and secondary barriers (not to scale)

Notes:

Table 3.11 provides guidance on minimum occupancy load factors to be applied to different areas

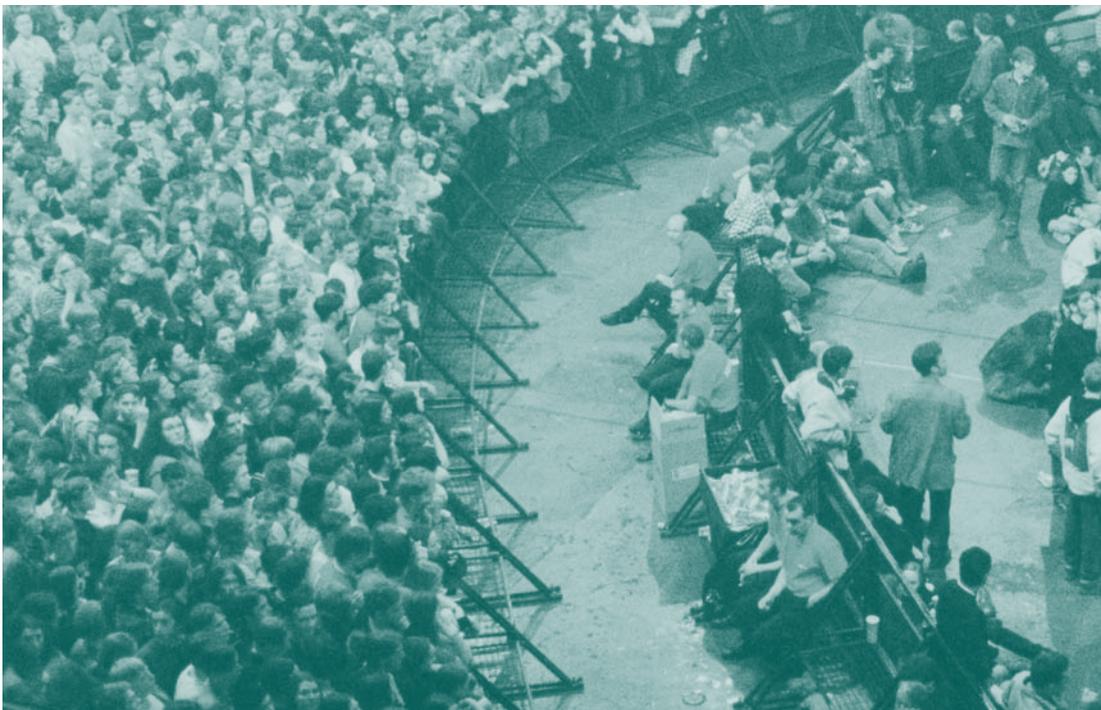
The “Pit” area is subject to an appropriate occupant capacity and an average occupancy load factor of not less than 0.25^2 per person.

Maximum occupant capacities and occupancy load factors are subject to a risk assessment which takes account of all relevant crowd control factors for the particular circumstances.

4.3 Secondary Barrier

A secondary barrier runs the full width of the venue and is generally laid out in a convex curve (outward from the stage). A sterile corridor with not less than 2 m clear working space for stewards on crowd control duties should generally be provided behind a secondary barrier, but in some situations the barrier itself may provide an adequate level of control. The arrangement of the barrier should be such that there is no penning or corralling, where part of the audience is confined in two directions. Where a secondary barrier is in place, it is essential that provisions with respect to the means of escape (see Section 6.5), including travel distance, widths of escape routes and exits, etc. from all areas are adequate.

Secondary Barrier



The problems which can occur close to the front of stage barrier (see Section 4.2) can also occur close to the secondary barrier. These problems are generally manifested by way of increased density of persons and consequential restricted movement close to the secondary barrier. The overall size of the standing audience behind a secondary barrier should therefore be limited. The relevant factors to be considered include those described in Section 4.2 above. A secondary barrier should be similar, in design and construction, to the front of stage barrier.

4.4 Multiple and Other Barriers

There may be situations in very large venues where multiple barriers may be appropriate. This is where one or more additional barriers, similar to the secondary barrier, are provided to control the numbers in a standing audience, where the risk so warrants.

Barriers, other than the front of stage barrier and secondary barrier, are also likely to be required for crowd control purposes. These include barriers to protect the perimeter of the sound-mixing station, to facilitate security screening, for queuing arrangements, etc. The position of the sound-mixing station should be carefully considered relative to other

barriers, its impact on crowd movement, access routes, means of escape, etc. The depth between the sound-mixing station and any secondary barrier should be such that the potential for localised overcrowding and restriction to movement is minimised.

While not likely to be required generally, in some limited situations finger-type barriers, extending into the audience, may be used to facilitate security access into a crowd. However, such arrangements should only be considered where they will not give rise to trapping points, means of escape problems, or other localised crowd control difficulties. The working space for stewards should be not less than 2 m clear width and the barrier should be designed to the same standard as the front of stage barrier and secondary barrier.

High side-stage barriers should be provided wherever there is a large standing audience. These barriers serve to restrict sight-lines in the side-stage areas and help to keep exits to the left and right of the stage clear and available for use in an emergency. The design of side-stage barriers should be in accordance with BS 6180: 1995 Code of practice for barriers in and about buildings.

4.5 Construction of Crowd Control Barriers

The front of stage barrier, secondary barrier and finger barrier (where appropriate) should be constructed with a solid front and should be of a suitable height, generally regarded as 1.2 m high (but not less than 1.1 m) over a tread plate. The barrier design should comply with the requirements of BS 6180: 1995 Code of practice for barriers in and about buildings, except that the horizontal design loading to the top of the barrier should be 5 kN per metre length. The barrier should be capable of resisting sliding and overturning when subjected to its full design loading.

Depending on the design of the barrier system, appropriate fixing into the floor may be required. Where a demountable barrier system is used, provision should be made to ensure that the barriers remain in position and are prevented from sliding or overturning. For this purpose, permanent anchorage points within the floor may be necessary. For some situations, it may be appropriate for the front of stage barrier to form an integral part of the stage structure, incorporating strutting and bracing as required.

Care should be taken to ensure that barriers do not cause injury; in particular there should be no sharp points or projections. The tread plate on the audience side should not be higher than 150 mm and be tapered outwards to minimise any trip hazard. The barrier should contain a platform, 450 mm high, for use by stewards operating between it and the stage to reach into the crowd. There should be a non-slip and unobstructed working area behind the barrier and enough room to allow persons in distress to be taken to safety. There should be a clear width between the stage (including any sound or other equipment) and the front of stage barrier of not less than 2 m. Exits from the working area should be unobstructed and there should be clear access from there to the First Aid Centre, Casualty Holding Area and Medical Centre.



5.1 Introduction

Stewarding at an event plays an essential role in the crowd management strategy. Stewards are principally involved with crowd control duties but they will also be available to assist the emergency services in the event of an emergency occurring. Stewards are required at all key points where control is needed such as at each entrance and exit, escape routes, front and rear of stage, at all barriers and gangways as well as for other duties such as patrolling the premises and its vicinity, car-parking, fire-fighting, evacuation etc. There should be a predetermined number of stewards on duty at all times during an event and reserve stewards should be available as required for contingencies, break periods etc.

Stewards should be fully briefed before taking up duty and should be issued with clear, written instructions as to their duties. Every steward should have a well defined role with a clear understanding of her/his control and reporting functions within the event management structure. Depending on the circumstances with which they are faced, the duties of a steward can change and they should be fully aware of this possibility.

Supervisory stewards should be employed to assist the Chief Steward (see Section 2.9) in his/her duties. Supervisory stewards would, for example, oversee stewarding in particular areas of the venue. Depending on the event and venue and the overall number of stewards, each supervisory steward could oversee teams of up to 10 stewards. Stewards are responsible to the Chief Steward and to supervisory stewards, where appropriate. Radio contact should be maintained where necessary. While on duty stewards should not leave their posts without the permission of their supervisory steward.

Stewards should not be required to be on duty for very long periods without appropriate breaks, especially those who may be on duty close to loud speakers such as in the front of stage area. Adequate hearing protection will be required for stewards exposed to high noise levels.

All stewards should be physically fit and over 18 years of age. Stewards should be trained to carry out their general and specific duties effectively. The type of training will depend on the functions performed but stewards should be fully capable of undertaking the duties assigned to them.

All stewards should have received a basic training in stewarding and crowd control. Stewards engaged in the working area at the front of stage barrier or at other barriers should be specially trained to recognise persons in distress in the crowd and to rescue any such individuals.

Familiarisation training and rehearsal should be provided for stewards, as appropriate. In the case of venues where events take place frequently, rehearsal training should be repeated periodically. For once-off events, and venues where events are held only periodically, rehearsal training should take place at a reasonable period prior to the event.

5.2 Duties of Stewards

Stewards will generally be assigned individual roles and responsibilities. However, these roles can be varied as circumstances dictate. It is essential therefore that all stewards on duty at a venue should:

- be familiar with the layout and facilities of the venue and particularly the areas directly relevant to their immediate duties;

- be familiar with the problems associated with large crowds and be able to recognise and report indications of critical crowd conditions developing;
- be familiar with the availability of fire-fighting equipment, arrangements for emergency medical facilities, and evacuation procedures;
- not consume or be under the influence of alcohol or other behavioural altering substance at any time while on duty; and
- be calm and courteous at all times and be generally helpful.

Specific duties which may be assigned to stewards include the following:

- ensuring that concourses, stairways, passageways, gangways, seat-ways and escape routes are kept clear and that all exits are immediately available for use;
- responding in a pre-determined way to a range of situations, including fire safety duties (see Section 6.14);
- directing and controlling persons queuing and entering or leaving the venue;
- directing persons approaching the venue, where necessary;
- assisting at entrances, checking tickets, security checking, directing people to their assigned areas etc.;
- patrolling the venue and its surrounds;
- controlling areas in front of barriers by preventing access to restricted areas or rescuing persons in distress;
- removing from the crowd persons in distress or persons whose behaviour is not acceptable; and
- monitoring crowds using crowd spotting techniques (binoculars, high-beam torches etc. should be provided for this purpose as appropriate).

5.3 Identification and Registration of Stewards

Stewards dress should always be distinctive so that they are easily and readily identifiable. In larger venues and events, it would be appropriate that stewards should wear dress such as fluorescent jackets or bright or fluorescent-coloured tee-shirts. Each jacket or shirt should bear a distinctive identifying number. If possible, these jackets/tee-shirts should be of a colour other than that worn by the Garda Síochána, which is yellow. In larger venues, stewards in the different area/zones should preferably have different coloured fluorescent jackets/tee-shirts.

A register should be prepared with the name and address of each steward, including stewards supplied by professional security firms. The number on the register should correspond to the number which should be clearly shown on the front and back of the fluorescent jacket or teeshirt worn by each steward. The register should be made available to the Gardaí as required.

5.4 Number of Stewards

The total number of stewards required for crowd management will vary depending on the event, the venue and other particular circumstances that exist. As an approximate guide, this number can be estimated in relation to the total size of the audience but in each case an assessment of more precise requirements will be needed. On the basis of audience size the following ratios give an initial indication of the number of stewards that may be required:

- for a standing audience or a mixed seated and standing audience, one steward for every 100 persons; and
- where permanent fixed seating is provided for the entire audience, one steward for every 250 persons.

Where an audience is predominantly under the age of 16, a doubling of these ratios may be required with stewards distributed so as to exert effective control, particularly on stairways or balconies; regard being had to the provisions of the Children Act, 1908 (see Section 14.16).

These indicative figures do not include stewards needed for car parking and traffic management duties, or reserve stewards, or persons employed in concessions, bars, etc.





Fire Precautions and Fire Safety

6.1 Introduction

There are two principal elements to a fire safety strategy. The first relates to the venue itself and the standards that are appropriate in line with good practice and in line with statutory duties. The other part of the strategy relates to the good fire safety management procedures that should exist for the event itself and certain aspects of which will also apply on an ongoing basis to the venue.

The Event Safety Officer is responsible for overseeing the fire safety strategy for the event, which should be set out in a written statement (see Section 6.22).

6.2 Building Regulations

The Building Control Act, 1990 and associated regulations, apply to new buildings, extensions, material alterations and material changes of use. The Building Regulations set requirements, including those for fire safety, which must be met. The fire requirements of the Building Regulations are set out in five parts as follows:-

- B1 Means of Escape;
- B2 Internal Fire Spread (Linings);
- B3 Internal Fire Spread (Structure);
- B4 External Fire Spread; and
- B5 Access and Facilities for the Fire Service.

Technical Guidance Document B provides guidance on how to comply with the parts of the Building Regulations relating to fire safety. While the provisions in the document are set out separately for each part of the Regulations, the provisions as a whole should be considered as a package of fire safety measures aimed at achieving a satisfactory standard of fire safety.

Other Parts of the Building Regulations may also be applicable. These include Part A, Structure (see Chapter 7); Part J, Heat Producing Appliances; Part K, Stairways, Ladders, Ramps and Guards; and Part M, Access for Disabled People (see Section 13.1).

6.3 Fire Safety

Section 18 of the Fire Services Act, 1981, relates to fire safety in premises put to a range of uses, including premises used as a concert venue, and places a duty on the person having control over the premises requiring that reasonable measures be taken by that person to guard against an outbreak of fire and, as far as is reasonably practicable, to ensure the safety of persons in the event of an outbreak of fire. There is also a duty of care on all persons on the premises not to put others at risk from fire as a consequence of any act or omission on their part.

6.4 Fire Safety Measures

The fire safety measures required in a concert venue include a wide range of active and passive measures, in addition to fire safety management. The active measures are those which come into action on detection of a fire, for example, fire alarm systems, sprinkler systems, smoke extraction, etc., while passive measures relate to the defence provided by the fabric of the building such as walls, floors, doors, etc. Fire safety management relates to the use of a building and includes fire prevention and other management duties to safeguard against an outbreak of fire and to protect persons should a fire occur. The fire safety strategy (see Section 6.22) for a concert will therefore comprise of a combination of active and passive measures and fire safety management.

Guidance on fire safety in concert venues is contained in the following documents:

- BS 5588: Part 6: 1991 Code of practice for places of assembly;
- Guide to Fire Precautions in Existing Places of Entertainment and Like Premises, 1994;
- Code of Practice for Fire Safety of Furnishings and Fittings in Places of Assembly; and
- Code of Practice for the Management of Fire Safety in Places of Assembly.

6.5 Internal Layout

Different events may require changes to the internal layout of a concert venue and particular crowd control measures (see Chapter 3) may be required. These changes and crowd control measures may have implications for the means of escape provisions and it is essential therefore that all parts of the venue are adequately provided for in this regard. Appropriate guidance on means of escape is contained in BS 5588: Part 6: 1991 Code of practice for places of assembly and in the Guide to Fire Precautions in Existing Places of Entertainment and Like Premises.

6.6 Stage

The stage, the materials which make up stage sets, and the performance itself, can present a high risk of fire, especially where there is a high electrical loading for lighting and other special effects. The back-stage area can also present high fire risks from costumes and other materials that may be present there. These areas need to be strictly controlled and require special procedures to deal effectively with any fire incident that occurs.

The fire safety measures in the stage area should meet the recommendations contained in Section 5, Sub-Section 13, of BS 5588: Part 6: 1991 Code of practice for places of assembly. Additional fire safety provisions relating to scenery, special effects, etc. are required in the case of an open stage. (An open stage is a stage that is not separated from the auditorium but may be separated from other parts of the premises). Guidance on these additional provisions is contained in the Guide to Fire Precautions in Existing Places of Entertainment and Like Premises.

Guidance on the fire safety measures required for a separated stage is also contained in the latter Guide. (A separated stage is one that is separated from the auditorium and the rest of the premises and includes the provision of a safety curtain at the proscenium opening). There should also be a means of high level smoke and heat ventilation in the event of fire in the stage area.

6.7 Furnishings and Fittings

Furnishings and fittings in concert venues, including seats provided for a closely seated audience, should meet the standards recommended in the Code of Practice for Fire Safety of Furnishings and Fittings in Places of Assembly.

6.8 Fire-Fighting Equipment

Appropriate first aid fire-fighting equipment should be provided throughout the venue. This will consist of suitably located first aid hose reels and/or fire extinguishers of an appropriate type. Hose reels would be suitable only in locations where their use would not unduly hinder the means of escape.

First aid fire-fighting equipment should be carefully selected and positioned, taking into account potential sources of ignition. The back-stage area, electrical switch rooms and dressing rooms are particularly important in this respect. First aid fire-fighting equipment should be used only by persons who are suitably trained in its use, and only when it is safe to do so.

Guidance on the provision of first aid fire-fighting equipment for concerts is contained in Chapter 10 of the Guide to Fire Precautions in Existing Places of Entertainment and Like Premises.

6.9 Pyrotechnics and Special Effects

The use of pyrotechnics and other special effects can present special fire risks and their use must be carefully considered and controlled to ensure that the safety of the audience and performers is protected. Debris from pyrotechnics can be hot and should this fall on combustible materials, it could cause ignition leading to fire. Other special effects include the use of lasers, strobe lights, ultraviolet lights, and the use of smoke and vapour effects, all of which present special risks requiring careful consideration.

Any proposals to use pyrotechnics or other special effects should be discussed well in advance with the statutory authorities, such as the Garda Síochána and the local authority, and decided on by the Promoter provided only that there is no anticipated danger to public safety and no danger that any escape or exit routes could be obscured or that panic could be induced or confusion created in the audience arising from their use.

If strobe lights are used, the prior warning to be given by the Promoter should be clear and timely and leave a flicker-sensitive individual in no doubt as to the dangers of epilepsy that may arise at any event s/he proposes to attend.

Explosive substances, which include substances producing a pyrotechnic effect, are subject to the control provisions of the Explosives Act, 1875. These include licensing for the importation of any such substances. The Act also governs the manufacture, keeping, selling and carrying of such substances.

Appropriate guidance on the use of pyrotechnics and other special effects is contained in the following publications:

- Guide to Fire Precautions in Existing Places of Entertainment and Like Premises, 1994; and
- Guide to Health, Safety and Welfare at Pop Concerts and Similar Events, 1993.

6.10 Seating

Concert venues may have permanent fixed seating or temporary seating, or a mixture of both types, for a particular event. The arrangement of permanent and temporary seating with respect to layout, including numbers of seats in rows, widths of gangways, number of escape routes and travel distance, should meet certain criteria with respect to means of escape. Seats must also be adequately secured to ensure that they do not move when in use and do not impede the means of escape. Guidance on the layout and fixing arrangements for seating is contained in Section 3, Sub-Section 8 of BS 5588: Part 6: 1991 Code of practice for places of assembly.



Seats should be securely located in position to avoid gangways and exits being obstructed by displaced and overturned seats, especially in an evacuation. Where the seating layout is permanent, all seating should be firmly fixed to the floor. Retractable or telescopic seating should be provided with locking devices to prevent movement. Where the seating layout is temporary, seats should be secured together in lengths of no fewer than four. Provision should also be made for the fixing to the floor of any seating which flanks the front, back and gangways and of any seats near exits. It should not be possible to separate seats which are laid out in rows, nor for a row to “snake” merely by pushing one or more seats in a row.

Where the fixing of seats to the floor is impracticable, the use of floor bars may be considered but this form of securing seating is not recommended where a very lively audience is anticipated. Where floor bars are employed they should have a cambered top surface so as to avoid the risk of tripping by persons using the seating. All seating on telescopic or retractable units and tiered platforms of any type should be securely fixed.

All areas under tiered seating should be kept clear of rubbish and should not be used for storage of any kind. Access to the underside of seating will be required for cleaning purposes, but unauthorised access should not be permitted. Concealed areas under seating should be inspected regularly during performances. Fabric or other combustible materials should not be used to screen off under-seating areas or to form enclosures to escape stairways from temporary seating. All surfaces of the side panels, back panels and facia to temporary tiered seating should have a Class 0 performance, as defined in Appendix A of Technical Guidance Document B, Fire Safety (Building Regulations, 1997).

Where seating is provided on raised floors, balconies or other structure (whether permanent or temporary) protection from falling should be provided to the front, rear and sides, as appropriate, by way of suitable guarding. Guarding should also be provided to the sides of stairways and to any openings or changes in floor level where there is a danger of persons falling. Advice on the general design and construction of balustrades and protective barriers in and about buildings is contained in BS 6180: 1995 Code of practice for barriers in and about buildings.

Structures used to support all seating, whether such seating is permanent or temporary, should comply with the structural provisions indicated in Chapter 7.

6.11 Fire Safety Management

Fire safety management is an essential component of the fire safety strategy (see Section 6.22) for any event.

Comprehensive guidance on fire safety management is contained in the Code of Practice for the Management of Fire Safety in Places of Assembly. It is important that a fire safety programme for the venue, as referred to in the Code, is in place to minimise the risk to the public from fire. The Event Safety Officer should ensure that the fire safety programme and the day-to-day fire prevention measures referred to in the Code are implemented.

Where a separate Fire Safety Officer has been appointed, s/he should be present when the public are on the premises. S/he should monitor the event from a fire safety perspective, be in a position to advise on evacuation or take other action, as appropriate, and have a secure means of communication with the Event Safety Officer.

Care should be taken that all stewards on duty when the premises are open to the public should have a clear understanding of:

- their duties in regard to keeping circulation areas and escape routes, both inside and outside the building, clear at all times;
- the need to ensure that all exits can be readily opened from inside; and
- the responses expected from them in the event of an actual or suspected outbreak of fire.

The stewards should include a sufficient number, suitably trained in fire safety duties (see Section 6.14), to be deployed to the different areas with special concentration on identified key areas.

6.12 Maintenance of Fire Safety Systems

The maintenance and supervision of the active systems in a building during its life, in accordance with the provisions of relevant design standards, is critical to their proper operation in the event of a fire. Relevant design standards for these systems include the following;

- I.S. 3217: 1989 Code of Practice for Emergency Lighting (see also Section 8.4);
- I.S. 3218: 1989 Code of Practice for Fire Detection and Alarm Systems for Buildings - System Design, Installation and Servicing; and
- BS 5306: Part 2: 1990 Specification for sprinkler systems.

The details of all testing, inspection and maintenance of active systems should be recorded in the fire safety register (see Section 6.19) for the building. The Event Safety Officer should ensure that all fire safety systems are fully operational and in proper working order before each performance. Any repairs that are necessary should be carried out prior to the public being admitted to the premises.

6.13 Housekeeping

An essential part of fire safety management at an event is good housekeeping; this should ensure that;

- rubbish and waste materials are not allowed to accumulate;
- flammable liquids, gases and other potentially dangerous substances are not stored on the premises;
- smoking is not allowed in stores, plant rooms and other similar areas (smoking is prohibited in the auditoria of premises built or adapted for the holding of concerts Tobacco (Health Promotion and Protection) Regulations, 1995);



- electrical appliances and other equipment in use are in proper working order and do not constitute a fire risk;
- upholstered seating is in good condition and filling materials are not exposed;
- fire resisting doors and smoke stop doors are not propped or wedged open;
- portable gas and liquid fuel heaters are not being used; and
- members of the public are not permitted to enter areas other than those to which they are intended to have access.

6.14 Staff Training

Stewards and other staff to whom specific fire safety duties are assigned should be given appropriate instruction and training in the following areas:

- (i) fire prevention measures;
- (ii) emergency, fire and evacuation procedures devised for the premises;
- (iii) ensuring that escape routes and exit doors are unobstructed and available for use;
- (iv) fire control techniques including the use of fire extinguishing equipment, closing fire doors, etc.
- (v) the layout of the building including escape routes, location of alarm call points, location of fire-fighting equipment (including watermains and storage), and location of assembly points; and
- (vi) provision of assistance to the fire brigade.

Particulars of all staff training and instruction should be entered in the fire safety register (see Section 6.19).

6.15 Fire and Evacuation Procedures

Fire and evacuation procedures should be in place for each event. These procedures should set out the specific actions to be taken (and by whom) in the event of a fire, or other emergency. There should be pre-determined procedures for the following situations:

- on discovering a fire (including calling the fire brigade);
- on hearing the fire alarm or other warning of fire; and
- on the occurrence of any other emergency (including calling the emergency services).

The Event Safety Officer (and Fire Safety Officer, where there is one) should advise the Event Controller on whether or not a premises should be evacuated. There should be clearly established procedures to carry out the complete evacuation of the premises, safely and with the minimum delay, using all available exit routes. Good communication between key personnel and with stewards is essential in any emergency situation and all personnel should have a clear understanding of their own role in an emergency.

Chapter 12 provides guidance on emergency planning, including the preparation of a venue evacuation plan (see Section 12.3).

6.16 Informing the Public

Members of the public should be made aware of the safety procedures that apply in the event of fire or other emergency. This should take the form of fire instruction notices and/or announcements as appropriate before the performance commences and at intervals while the public are on the premises. At large concerts, video screens in use for the performance could be used to relay safety messages to the audience. Such messages could be used to prevent crowd control problems which could give rise to an emergency.

Emergency announcements are made to advise occupants that a fire or other emergency exists. Where a decision is made to evacuate a premises, agreed arrangements to interrupt the performance should be implemented. They should be made in such a way that they are audible in all occupied parts of the premises. The person making the announcements should where possible appear before the audience. Video screens could also be used for this purpose (see Sections 11.3 and 12.4).

6.17 Escape Routes

The Fire Safety in Places of Assembly (Ease of Escape) Regulations, 1985, provide that certain fire safety precautions relating to escape routes and exit doors should be taken by persons having control over a place of assembly and that a person in a place of assembly shall not prevent or obstruct the person in control from complying with the Regulations.

Members of the public cannot be evacuated from a premises quickly and safely if escape routes are obstructed or exits are locked. It is therefore essential that all escape routes and exit doors are maintained free from obstruction and immediately available for use while the public are on the premises. External areas at or near exits should be kept free of vehicles, and other obstructions to allow unimpeded escape to a place of safety.

6.18 Assisting the Fire Brigade

The following measures should be taken to assist the fire brigade in its response to a fire or other emergency:

- access routes should be kept clear for use by fire appliances;
- gates and barriers that are likely to obstruct fire-fighting operations should be unlocked or removed in the event of an emergency;
- the Event Safety Officer should meet the officer-in-charge of the fire brigade and provide information on:
 - (i) the number and location of persons on the premises;
 - (ii) the location of the fire;
 - (iii) any special hazards;
 - (iv) entry points to the building; and
 - (v) available water supplies; and
- the Event Safety Officer should make staff available to assist the fire brigade if required.



6.19 Fire Safety Register

The Event Safety Officer should be satisfied that the fire safety register for the premises has been maintained properly and is up to date. This register is used to record all fire safety matters relevant to the premises. The register should be available for inspection by any authorised officer of the fire authority.

The Code of Practice for the Management of Fire Safety in Places of Assembly specifies the data that should be recorded in the fire safety register and presents standard formats for different items.

6.20 Overcrowding

Overcrowding can have serious implications in the event of a fire or other emergency. Section 3.11 gives guidance on overall occupant capacity in addition to limitations in relation to its disposition throughout the premises. The means of escape will have been designed to cater for these capacities and any excess on these numbers could lead to severe difficulties in the event of evacuation being required.

Where the maximum number of persons that may be permitted on the premises has been specified by a Court or by the fire authority, a notice to that effect, which clearly indicates the maximum number concerned, should be displayed in a prominent position near the entrance and such numbers should not be exceeded. Management and staff should assist an authorised officer of the fire authority or a member of the Garda Síochána, if requested, in checking the number of persons on a premises at any time.

It is essential that arrangements are in place to ensure that the number admitted is strictly controlled and recorded and that the number on the premises can be readily and accurately ascertained (see Section 3.12).

6.21 Plans of Premises

A plan of the premises should be displayed inside the main entrance(s) where it should be clearly visible to persons entering the building. The plan should show the basement, ground floor, and each upper storey as applicable and should clearly indicate the location of staircases and escape routes by reference to the point at which the plan is displayed - that point should be clearly identified on the plan and designated by the words "You are Here".

Plans for particular sections of very large venues and for each floor thereof, as appropriate, should be displayed in a prominent position on each section or floor concerned indicating the location of staircases and escape routes by reference to the point at which the plan is displayed - that point should be clearly identified on the plan and designated by the words "You are Here".

All plans should be orientated in the direction of the perspective of the viewer, displayed on durable material, easily legible, and drawn to a suitable scale.

6.22 Fire Safety Strategy

The event safety strategy (see Section 2.5) should incorporate a statement on fire safety strategy. This statement is a review and evaluation of the fire safety measures necessary to achieve a satisfactory level of fire safety. It should include details of the active and passive measures and outline the fire safety management arrangements for the event.

7.1 Introduction

The adequacy of the structural elements, both the permanent structures and any temporary structures, is a critical consideration in the assessment of the suitability of a building for use as a concert venue. The design and construction of buildings and structures should be in accordance with good engineering and building practice, as set out in the relevant Irish, British or European standards, specifications and codes of practice.

7.2 Structural Assessment

Some venues may have been purpose-built as a concert venue, while others may have been converted from a previous use or have been altered significantly from their original design. All concert venues should be subject to an initial structural assessment prior to use for that purpose, and thereafter should be reassessed on an annual basis and following structural alteration or modification.

For particular events, the stage construction, seating arrangements, support for production facilities such as scenery, lighting and sound equipment, and any other modifications should be fully assessed from a structural viewpoint. Dynamic loading can be a significant factor with a concert audience and should be considered as part of the structural assessment.

Guidance on appraisal of existing structures is contained in “Appraisal of Existing Structures”.

Further guidance on the design and construction of structures, including temporary structures, and guidance on dynamic loading is outlined in Sections 7.4, 7.5 and 7.6.

7.3 New Works and Material Changes of Use

The Building Control Act, 1990, and associated regulations, apply to the construction of new buildings, extensions, material alterations and material changes of use. The Building Regulations set technical standards, including standards for the structure, which must be met. The requirements concerning the structure are set out in Part A of the First Schedule to the Building Regulations and cover loading, ground movement and disproportionate collapse. Technical Guidance Document A provides guidance on how to comply with the parts of the Building Regulations which relate to the structure.

Other parts of the Building Regulations may also be applicable, e.g. Part B, Fire Safety (see Chapter 6); Part J, Heat Producing Appliances; Part K, Stairways, Ladders, Ramps and Guards; and Part M, Access for Disabled People (see Section 13.1).

7.4 Structural Design

All permanent and temporary structures should be capable of withstanding any load or force to which they may be subjected. In addition to its self weight and any other permanent loads, the structure should be designed to withstand loading from crowds and their movement in accordance with BS 6399: Part 1: 1996 Code of practice for dead and imposed loads.

Dynamic effects will be significant when any crowd movement is synchronised and the design should include an allowance for these (see Section 7.5).

7.5 Dynamic Loading

Dynamic loads due to occupant activity should be considered in the design of structures and seating. Dynamic loads may be created by audience activity such as sitting down or

rising from seats, jumping, swaying, dancing, hand-clapping or foot-stamping. The dynamic loads which are generated by audience movements vary considerably according to the activity taking place. Dynamic loading can also arise from mechanical vibration or be acoustically driven.

Dynamic loads, in both horizontal and vertical directions, can be significant when any crowd movement is synchronised. If periodic loads excite a natural frequency of the structure, resonance will occur which can greatly amplify the structural response. Cantilever structures are particularly vulnerable in this regard. These effects should be carefully assessed and provision should be made to avoid their occurrence.

Crowd movements can generate both transient and periodic vibrations. Impulsive loading will be generated when spectators rise from their seats or sit down and this will generate transient vibrations. The co-ordination factor relating to any activity is significant.

Music often provides the means to co-ordinate periodic movement. Although impulse loads may result in significant accelerations, it is usually the periodic loads which are of primary concern, especially if resonance occurs.

The dynamic response of seating structures to audience movements causes displacements and accelerations. Displacement is the most important criterion when assessing the structural integrity of a seating support structure while acceleration is the most important criterion as far as human perception is concerned.

Detailed guidance on the design of those types of structures for dynamic loading is contained in Temporary Demountable Structures: Guidance on Procurement, Design and Use.

7.6 Temporary Structures

For many events, temporary structures are employed for the stage, seating, lighting rigs and other supporting structures. Temporary structures should be designed and constructed in accordance with good engineering and building practice, as set out in the relevant Irish, British or European standards, specifications and codes of practice.

While many of the factors affecting safety in temporary structures are common to the design of permanent structures, there are a number of items that are likely to be of greater importance for those structures classified as temporary or demountable and it is essential that those items are assessed. Critical items in this regard are:

- (i) overall stability;
- (ii) disproportionate collapse in the event of the removal of a component;
- (iii) dynamic response;
- (iv) unusual crowd movement or behaviour;
- (v) effects of repeated use; and
- (vi) lack of fit and necessity to detail special components in areas where the layout and other circumstances prevent standard components being used.

Failure of any one support member or connection should not render the structure unstable, cause local collapse or give rise to progressive collapse. Frames should be so designed that they are firmly locked into position and cannot be tampered with by unauthorised persons.

Bracing should be provided in both directions to accommodate horizontal loads of at least 10% of the vertical imposed loads in accordance with BS 5973: 1993 Code of Practice for access and working scaffolds and special scaffold structures in steel. Bracing members should be included in sufficient numbers so that the absence or removal of up to two adjacent members would not initiate a disproportionate collapse of the structure.

All temporary structures, whether intended for repeated use or as once-off designs, should have design calculations prepared for all aspects of the structure together with specific design/performance requirements for foundations. Prior to erection, the calculations and drawings should be subject to design verification by a suitably experienced chartered engineer or an engineer suitably qualified and experienced in structural engineering.

A method statement should be prepared for the erection of temporary structures. The erection should be carried out by, or under the supervision of, persons experienced and trained in the proper performance of such work, in accordance with the method statement and the drawings and specifications.

Work should be carried out only where lighting is sufficient to allow it to be safely and properly performed and supervised. No assembly work should be carried out if there is a risk to members of the public in the vicinity.

The work should be carried out using correct parts, and tools of a proper size and design. Care should be taken with the handling of components to avoid damage or distortion. All components should be closely examined during assembly and dismantling for signs of wear, deformation or other damage, and, where necessary, replaced by sound components of matching material, properties and dimensions. Temporary repairs using makeshift components should not be carried out under any circumstances.

Fixings and handrails for all platforms, stairways, etc., must be adequate. Care should also be taken to ensure that all components are correctly aligned; they should not be bent, distorted or otherwise altered to force a fit. Components showing signs of corrosion should not be used.

The Event Safety Officer should ensure that the design and erection of temporary structures are carried out under the supervision of a suitably experienced chartered engineer, or an engineer suitably qualified and experienced in structural engineering, who should ensure that the structures are erected in accordance with the drawings.

The following matters may require particular attention:

- (i) standards should be provided with base plates and spreaders as required, and with suitable restraints where these are required to prevent overturning; adjustable bases should be used in accordance with manufacturer's recommendations particularly in relation to bracing requirements; the use of plywood packers to make up changes in level should be minimised and used only with the approval of the supervising engi-



neer;

- (ii) bracing should be provided as required;
- (iii) seating should be adequately secured and the spaces behind seats limited to prevent persons falling through any gaps;
- (iv) fixings and connections should be provided and tightened as required by the specification;
- (v) production facilities such as scenery, lighting and sound equipment should be adequately secured; and
- (vi) non-standard components should not be used.

Erection of temporary structures should be completed in good time before the venue is opened to the public, preferably no later than 12 hours beforehand. Any last minute changes in structures must be avoided. The design, construction and erection of the completed structure or any subsequent alteration made thereto should be certified by the supervising engineer. Temporary structures left in place for a series of events should be checked before each event by the Event Safety Officer.

The submission of details of temporary structures, certification or other relevant structural information may be required by the local authority, in advance of an event. Depending on the nature and extent of the temporary structures involved, this information should be provided as soon as is practicable before the event.

Dismantling should be carried out by, or under the supervision of, persons experienced and trained in the proper performance of such work. No dismantling work should be carried out while members of the public are in the vicinity. Care should be taken with the handling of components to avoid damage or distortion, using tools of proper size and design.

Further guidance on the design and erection of temporary structures is contained in Temporary Demountable Structures: Guidance on Procurement, Design and Use.

8.1 Introduction

The electrical installation at concerts should be adequate for normal and emergency situations. Auxiliary power should be available and be sufficient to enable emergency lighting, the public address system, close circuit television (where installed) and other electrically powered safety installations to function for at least 3 hours after the failure of the normal supply.

Electrical installations, particularly for large events, can be complicated and extensive. Defective electrical installations can present a risk of fire due to overloading of circuits and equipment. The installation must be installed and managed properly so as to ensure the safety of the public and those employed at the venue.

Attention is drawn to requirements in relation to electrical safety contained in Part VIII of the Safety, Health and Welfare at Work (General Applications) Regulations, 1993.

8.2 Electrical Installation

All electrical installations should comply with the national Rules for Electrical Installations (ET 101).

All control gear, cables and conductors should be sited to ensure that, as far as practicable, they are inaccessible to the public. Temporary wiring should be installed so that it does not cause a trip hazard or an obstruction. Cables and conductors of the fixed wiring should be enclosed throughout in a protective covering of material which has sufficient strength to resist mechanical damage.

A diagram, of the main distribution system should be mounted on a wall close to the main control point. Diagrams of the entire electrical installation (both fixed and temporary) indicating main switching, main fusing, local switching and fusing, cable sizes and runs, etc., should be contained in the electrical safety statement (see Section 8.6).

The electrical installation should be inspected prior to an event and the Event Safety Officer should be satisfied as to compliance with the standards referred to above. Completion certificates in the prescribed form, for the permanent and any temporary installations, should be included in the electrical safety statement (see Section 8.6).

For all major concerts, a qualified electrician familiar with the operation of the electrical installation should be present on the premises for the duration of the event.

8.3 Artificial Lighting

Where the natural lighting in any section of the venue accessible to the public or performers is deficient, adequate artificial lighting should be provided. All parts accessible to the public or performers should be provided with means of lighting, adequate to enable all persons to see their way into and out of the venue safely and to see, and be seen, within the venue. Adequate lighting is particularly important in relation to entry and exit routes and stairways used by the public. Emergency lighting should be provided as a back-up to the mains lighting.

8.4 Emergency Lighting

Emergency lighting should be provided in all parts of the premises which are accessible to the public, staff or performers and along all exit routes, with exit signs and directional signs clearly illuminated. The emergency lighting system should be completely separate from the normal lighting system and should be of the maintained type.

The system should be capable of maintaining the necessary level of illumination for a period of 3 hours from the time of failure of the normal supply. The maintained emergency lighting system should operate automatically on the failure of the normal lighting.

The emergency lighting should be inspected prior to each event to ensure that all exit signs are illuminated (see Section 2.10). The Event Safety Officer should ensure that the emergency lighting system has been designed, installed and maintained in accordance with the requirements of I.S. 3217: 1989 Code of Practice for Emergency Lighting.

If a power failure occurs, consideration should be given by the Event Controller to the cancellation of the event. If the auxiliary power supply is capable of supplying the entire load for the site for at least 3 hours it may be possible to decide to continue an event, provided it is possible to finish the event and clear the venue within this period and provided no other emergency situation exists. To supply such a load, a generator system is likely to be required. However, an additional back-up emergency power supply will be necessary if an event is to continue. Contingency plans for the failure of the power supply should be made.

Auxiliary power equipment should be located in a secure area to which the public does not have access and all generators should be installed in accordance with the National Rules for Electrical Installations : Particular requirements for standby generators (ET 104 or ET 104A). Any stand-by generator should be suitably located externally so as not to constitute a danger of fire spread to the building. All equipment should be installed, maintained and tested in accordance with the manufacturer's instructions and relevant Irish, British or other equivalent European standards, specifications and codes of practice.

8.5 Public Address System

The public address system (see Section 11.3) should be capable of continued operation in the event of an outbreak of fire. Where the system is part of the fire detection and alarm system, it should conform to the relevant requirements of I.S. 3218: 1989 Code of Practice for Fire Detection and Alarm Systems for Buildings - System Design, Installation and Servicing.

8.6 Electrical Safety Statement

The event safety strategy (see Section 2.5) should include a statement on electrical safety. This statement should incorporate details of the electrical installation required for the event, including certification in relation to the design, installation, commissioning and maintenance of all systems (including emergency lighting).

Emergency Medical Services (EMS)

9.1 Introduction

The Promoter should make provision for adequate emergency medical services (EMS) to deal with any persons requiring emergency medical attention or treatment. The Health Board should be consulted at event planning stage on the emergency medical services to be provided. The purpose of this consultation is two-fold. In the first place the Health Board will be in a position to offer guidance to the Promoter as to how best to discharge his/her responsibilities in the health area, including medical, nursing, first aid, ambulance staff, equipment, vehicles and communications. Secondly, consultation ensures that the Health Board, itself, is fully aware of the nature, size etc. of the event in order to evaluate any additional demands which the event may give rise to in relation to the Health Board's own responsibilities and to make its own contingency arrangements to deal with such demands including, as necessary, arrangements with one or more hospitals in order to maintain the normal accident and emergency service and to cater for additional casualties which may arise from the concert.

Consultation with the Health Board, if it is to be effective, should take place well in advance of the proposed event. The Health Board should be provided with details of the indoor concert such as the time, duration, expected audience, details of voluntary organisation or other agency providing emergency medical services, etc.

9.2 Operational Plan

An Operational Plan should be prepared by the organisation(s) providing medical and first aid services at the venue, indicating the names of key personnel, their areas of control, the level, nature etc. of services proposed, the location of ambulances, and the communication arrangements. The Plan should include a drawing of the venue showing the location of the EMS facilities. The purpose of this Plan is to show the provisions proposed for the operation of emergency medical services at the venue. These will be provided as appropriate through First Aid Teams and Centres, Casualty Holding Areas, Medical Centres, and ambulance provision.

9.3 First Aid

Provision should be made for first aid at the venue. The number of first aid personnel required will vary according to the type of venue, concert, artist, crowd numbers, and profile of expected audience. The Health Board will be in a position to offer advice as to the appropriate level of first aid provision at any indoor concert. In all cases, the first aid cover should include an officer in charge and First Aid Teams.

A senior experienced officer of the organisation(s) providing first aid should be appointed to take overall control of first aid provision. S/he should liaise as necessary with any doctor acting on behalf of the Promoter or any appropriate officer of the Health Board.

Each First Aid Team should consist of two trained first aid personnel, responsible for a specific area, providing basic first aid and reporting more serious casualties. Particular attention should be given to the location of Teams near the stage and at other critical areas in the venue. At least one properly equipped First Aid Centre staffed by first aid personnel should be provided. Each First Aid Centre should, in addition to adequate first aid materials and equipment including supplies of oxygen (on which the Health Board will offer advice), be provided with telephone, radio or other secure means of communication with the Event Controller and with other on-site EMS resources such as Casualty Holding Area, Medical Centre, Medical Officer and Ambulance Control.

At larger venues and concerts, a separate Casualty Holding Area should be provided to accommodate casualties who may not require hospitalisation but may require observation. This area which could be adjacent to the First Aid Centre should be staffed by first aid personnel and be capable of accommodating a minimum of ten casualties on canvas stretchers or blankets.

9.4 Medical Centre

A dedicated and properly equipped Medical Centre may need to be provided, particularly at larger concerts and venues, to render medical aid to more serious casualties referred by the First Aid Teams. The Medical Centre should be staffed by doctor(s) competent in accident and emergency medicine, registered general nurses with accident and emergency experience, and/or Emergency Medical Technicians (to National Ambulance Advisory Council standards). The Centre should be equipped to provide advanced life support and to deal with more serious casualties. The Health Board will be in a position to recommend as to the level and type of emergency medical cover to be provided.

The Medical Centre should be large enough to treat at least two casualties and have adequate space for staff to work. Drinking water and wash-hand basin facilities with hot and cold running water should be provided, as well as storage space, tables, chairs, examination/treatment couches, adequate lighting and power (including stand-by power and emergency lighting), and appropriate medicines and medical equipment. Doorways and approaches should allow access for stretchers or wheelchairs. Toilets and other facilities should be available including those suitable for persons with disabilities. Where the Health Board by agreement with the Promoter is engaged by him/her to provide the medical and nursing staff, the board will usually be prepared also to supply medical equipment as part of such agreement.

Depending on the nature and layout of the venue it may be possible to locate the Medical Centre in a separate building so that it can continue to function in the event of a fire, evacuation or other emergency.

The Medical Centre should be provided with telephone, radio or other secure means of communication with other on-site EMS resources such as Medical Officer and Ambulance Control and with the Event Controller.

9.5 Doctors

Making provision for doctors and their number at any indoor concert is among the matters which should be discussed with the Health Board at the planning stage. Where one or more doctors are present a doctor competent in the practice of accident and emergency medicine should act as Medical Officer (see Section 2.6) and be responsible for overall medical control of the event. The Medical Officer should be provided with telephone, radio or other secure means of communication with the Event Controller and with other on-site EMS resources such as Medical Centre and Ambulance Control.

9.6 Ambulances

Arrangements should be made for the provision of ambulance(s) at the venue for the conveyance of casualties from the venue to hospital. The Health Board will be in a position to advise at the planning stage as to the appropriate level of ambulance provision for an event.

9.7 Other Requirements

All medical, nursing, ambulance and first aid personnel should:

- (i) be at the venue and operational at least one hour before the public are permitted access to the event and remain until the event has ended and the audience has dispersed;
- (ii) be familiar with the location of First Aid Centre(s) and any Medical Centre; and
- (iii) be familiar with the Operational Plan and the role of the other services.

All medical, nursing, ambulance and first aid personnel should wear high visibility waistcoats/tabards clearly identifying their respective role, i.e. “Doctor”, “Nurse”, “Ambulance”, “First Aid” in addition to uniform/protective clothing worn. The Medical Officer and Ambulance Officer should also wear high visibility waistcoats/tabards clearly marked “Medical Officer” and “Ambulance Officer” respectively. Adequate hearing protection will be required for EMS personnel exposed to high noise levels.

All medical, ambulance and first aid facilities should be clearly identified by signs. Directional signposts should be provided as appropriate throughout the venue on the approaches to those facilities. Stewards should be aware of the location of First Aid Centre, Casualty Holding Area and Medical Centre. Non-transferable passes, giving access as required, should be issued to all EMS personnel at the event.

Wash-hand basin facilities and a supply of drinking water should be available at First Aid Centres, Casualty Holding Area, and at Medical Centre (see Chapter 10).

9.8 Recording and Notification

Organisation(s) providing emergency medical services for the Promoter should keep a record of all persons requiring EMS attention at an event. Details recorded in respect of each casualty should include name and address, type of injury or impairment and treatment, and eventual destination of casualty (home, hospital, etc.). These records should be maintained for post-event review purposes and should be available for inspection by relevant public authorities. Any persons injured other than minor injuries that require EMS attention should be notified to the Control Centre as they arise. The Medical Officer (see Section 2.6) should maintain contact with the Event Controller for this purpose.

The Promoter should be aware of the obligations of responsible persons under health and safety legislation to notify certain accidents and dangerous occurrences to the Health and Safety Authority. These requirements are set out in Part X of the Safety, Health and Welfare at Work (General Application) Regulations, 1993 and relate, inter alia, to notification, keeping of records, and examinations and tests.

9.9 Access for Emergency Vehicles

Designated parking should be provided for emergency vehicles so as to give them easy and rapid access to the venue including any First Aid Centre, Casualty Holding Area and Medical Centre. Parking areas should be spacious enough to allow manoeuvring as well as parking, taking into account the number of vehicles required for the capacity of the venue and the layout of the emergency areas. In certain cases, ambulances and other emergency vehicles may require a Garda escort; traffic management and emergency plans should take this factor into account (see Chapters 12 and 13).





10.1 Sanitary Accommodation

Adequate sanitary accommodation should be provided for the expected audience. Where possible sanitary conveniences should be located at different points around the venue. The minimum sanitary accommodation recommended for various places of entertainment is as set out in table 7 of BS 6465: Part 1: 1994 Code of practice for scale of provision, selection and installation of sanitary appliances.

Consideration should be given at the event planning stage to having some of the sanitary accommodation provided in smaller units which could be designated either male or female as required by the predicted audience ratio. Where the audience at an event is primarily female, it may be possible for that event to designate, for women, toilets which are normally available for men.

Clear notices showing the position of sanitary accommodation should be provided. Care should be taken to ensure that the location of the accommodation does not obstruct emergency routes and that it also minimises crowding and queuing problems (one-way systems should be facilitated as far as possible).

The sanitary accommodation should be soundly constructed, well lit, readily accessible and should be provided with a non-slip floor surface. Where possible, sanitary conveniences should be connected to the main drainage system and all pipe-work enclosed. Suitable and sufficient ventilation should be provided directly to the external air. An intervening lobby should be provided between the sanitary conveniences and any other part of the venue.

The water supply to all sanitary conveniences should be such that all cisterns can be refilled within two minutes. An adequate supply of toilet paper should be provided in holders or dispensers. These should be replenished as required. Suitable containers should be provided in water closet cubicles as required for the disposing of used sanitary towels. Such units should be maintained on a regular basis. These units should be positioned so as not to interfere with the use of the cubicle.

The sanitary accommodation should be regularly serviced and kept in a clean and hygienic condition. A sufficient number of attendants should be provided for this purpose and to prevent misuse. Arrangements should be made for the rapid clearance of blockages to the drainage systems. During the course of these operations attendants should be on hand to direct persons to the next nearest accommodation.

Separate sanitary accommodation should be provided, as appropriate, for the sole use of food workers.

10.2 Washing Facilities

Wash-hand basins should be provided in the following ratios:-

Female : 1 per 4 sanitary conveniences; and

Male : 1 per 5 sanitary conveniences or urinals (where slab urinals are used, each 600 mm length equates to one space or urinal bowl).

Washing facilities should also be provided at First Aid Centre, Casualty Holding Area and Medical Centre.

Each wash-hand basin should be serviced with a constant and instantaneous supply of hot and cold water, soap, and suitable hand drying facilities, such as an air dryer, automatic roller towel and/or paper towels. If paper towels are supplied, suitable receptacles for waste should be provided and maintained on a regular basis.

Mirrored areas in the ladies sanitary accommodation should be provided away from the wash-hand basins so as to prevent excessive queuing at the basins.

Adequate provision should be made for cleaning facilities including at least one cleaner sink in each block of sanitary facilities.

Suitable sanitary conveniences and washing facilities should be provided for use by people with disabilities. A minimum of one unisex water closet and wash-hand basin should be provided for each 100 such persons. These facilities should preferably be located close to areas set aside for wheelchair users and be designed to comply with the provisions of BS 5810: 1979 Code of practice for access for the disabled to buildings.

10.3 Drinking Water

Adequate supplies of potable water, complying with the various parameters outlined in the European Communities (Quality of Water Intended for Human Consumption) Regulations, 1988, should be available free of charge for those attending.

Drinking water points should be distributed around the venue. A supply of drinking water should be available at First Aid Centre, Casualty Holding Area and Medical Centre and immediately adjacent to (but not inside) each of the blocks of sanitary conveniences. The flow of the water to the fountains should be controlled by a pressure mechanism. Drinking water points should be supplied directly from the rising main.

10.4 Ventilation

Controlling heat and humidity in concert venues is important for the comfort and safety of persons attending an event. Adequate means of ventilation should be provided to ensure that ambient temperatures at an event do not become uncomfortable. Ideally ventilation systems would be supplemented by air conditioning to maintain ambient temperatures at a reasonable level.

All ventilation and air conditioning systems should be fully functional during the event. Whenever practicable, persons who require to rest and cool down could be accommodated at First Aid Centres and Casualty Holding Areas (see Section 9.3).

Materials used for ventilation and air conditioning equipment should, in so far as practicable, be non-combustible. The air handling system should be such that smoke or other products of combustion are not re-circulated in the event of fire. Where the system provides for re-circulation of air, smoke detection within the ductwork and suitable electrical inter-links should be provided, so that activation of the fire alarm system will restrict operation of the ventilation system to extraction only.

11.1 Introduction

Requirements for communications will depend on the venue, the expected attendance and the type of audience that will attend. The communications system should be of professional standard with recording facilities as appropriate. Communication systems should be regularly tested and maintained. Each person involved in the running of the event (e.g. Event Controller, Event Safety Officer, Chief Steward) should operate using a communal communications system. Clear and effective communications between the persons involved in running the event and the emergency agencies and voluntary organisations concerned will be essential so that an appropriate and co-ordinated response can be made to any real or threatened emergency situation. Arrangements for co-ordinating communications should be settled at event planning stage.

11.2 Control Centre

A properly equipped Control Centre should be provided from which the communications system should operate. The Control Centre should include a Public Address system, a radio control base and a telephone line. Depending on the venue, the Control Centre should, if possible, be located so as to command direct views of the auditorium and preferably be supported by closed circuit television in larger venues (e.g. those with a crowd capacity in excess of 2,000 persons).

It should be possible for the Control Centre to communicate with all staff on duty and with the public attending the event and there should be intercommunication between the Control Centre and the emergency agencies in the event of an emergency. Access should be limited to the staff of the Event Controller and his/her management team and to the senior Garda, ambulance and local authority officer in the event of an emergency.

11.3 Public Address System

A reliable Public Address (P.A.) system, directly linked to the Control Centre, should be provided. The P.A. system should be capable of overriding the 'Broadcast Music System' in the event of an emergency.

The P.A. system should be installed so that broadcast messages can be heard under reasonable conditions by all persons of normal hearing in any part of the venue to which the public have access. Important announcements relating to crowd safety should be intrusive to ensure that the message is heard and understood. In this regard, the announcement might be preceded by a signal to catch the attention of the crowd despite the high noise level of the venue. The signal should be distinct from any other signals which may be in general use on the system. Announcements should be short and clear, and should be scripted and tested beforehand.

A Compere or Master of Ceremonies (M.C.) who has empathy with the audience may also be able to relay appropriate information if required. It would be helpful where large numbers are attending an event for this Compere/M.C. to be on stage from the time the doors open to assist in crowd management particularly at the front of the stage area. During the concert, warnings may be given to the audience by the Compere/M.C.; the assistance of the performer may be enlisted in calming the crowd, as appropriate, particularly if it is considered that crushing could occur. Video screens could be used to give information with regard to crowd safety, procedures to be followed etc.

Loud hailers should also be available for use by stewards in all areas of the venue for issuing instructions and directions to the audience. An information point and/or lost persons meeting point may also be helpful.



11.4 Closed Circuit Television (C.C.T.V.)

Where C.C.T.V. is installed, this should monitor the approaches to the venue, all entrances/exits, the concourse area, front of stage area, and all other areas where crowd build-up is likely. It should be monitored at all times, identifying any “trouble spots” that arise. The Event Controller should be kept informed of any difficulties as these arise so that s/he can arrange for intervention as necessary. The C.C.T.V. should be recorded when in operation.

11.5 Radio

Key personnel should be in possession of radios linked to the radio control base in the Control Centre which should be staffed with competent and trained radio operators. All users of radios should be trained in their use. Radios should be equipped with earphones which enable all concerned to hear any messages given, irrespective of the noise.

Attention is drawn to the following points:

- (i) radios should be tested prior to the concert;
- (ii) individual call signs should be used;
- (iii) established radio procedure should be followed;
- (iv) in an emergency situation, previously agreed coded messages should be used and radio silence maintained by non-essential users; and
- (v) a fully charged battery should be installed in each portable radio prior to the event and a back-up supply of fully charged batteries should be available.



12.1 Introduction

Event planning and the distribution of responsibilities and resources by the Promoter are mainly concerned with managing and controlling the event to ensure the safety of the public. There is always the possibility of a major emergency arising which despite compliance with all reasonable precautions is beyond the capabilities of the event staff and the normal capabilities of the emergency response agencies, and which would require the activation of the Major Emergency Plans by the main statutory emergency response agencies (i.e. local authorities, Health Boards and the Garda Síochána).

12.2 Major Emergency

A major emergency is any event which, usually with little or no warning, causes or threatens death or injury, serious disruption of essential services, or damage to property beyond the normal capabilities of the local authority, Gardaí and Health Board. Major Emergency Plans have been prepared by these authorities to ensure that in the event of a major emergency occurring there would be a measured response from the emergency services and from hospitals to which any casualties would be brought. Implementation of their Major Emergency Plans is the responsibility of the statutory emergency response authorities i.e. local authorities, Health Boards, and the Garda Síochána. The Controller of Operations from the emergency response agencies will exercise control over, and co-ordinate, the functions and operations within the remit of each agency as set out in the Major Emergency Plan.

In the case of indoor concerts, a serious incident which could cause the Major Emergency Plan to be activated could comprise serious crowd disorder, fire, explosion, structural mishap or any unforeseen event necessitating evacuation of all or a significant part of the venue and which, broadly speaking, is beyond the capabilities of the event staff. The emergency services should be alerted immediately so that they can respond without delay. In the event of any emergency at a concert, whether due to fire or any other reason, the appropriate emergency procedures should be activated (see Section 6.15).

12.3 Venue Evacuation Plan

Promoters should arrange for a Venue Evacuation Plan to be drawn up to facilitate response in the event of an emergency arising. The scope and content of a venue evacuation plan will depend to a large extent on the location, construction, size, capacity, and layout of the venue. A number of key elements should be taken into account in all circumstances:

- (i) detailed evacuation procedures should be established and all staff should be familiar with these (see Section 6.15);
- (ii) clear access and access routes for emergency vehicles should be determined;
- (iii) safe assembly points and holding areas for members of the public should be identified;
- (iv) a reliable and tested communications system (for communicating with stewards, persons attending and the emergency services) should be provided; and
- (v) plans of the premises should be prepared showing layout of the venue, escape routes, access for emergency services, location of emergency equipment, location of hazardous equipment/substances.

The main emergency response authorities (i.e. the Garda Síochána, local authority and Health Board) should be consulted when the Venue Evacuation Plan is being drawn up and should be advised of the contents of the completed Plan. All concerned with an event should be familiar with the content and operation of the Plan, i.e. staff, statutory authorities and voluntary organisations.

Venue Evacuation Plans should be reviewed in the post incident period to establish if improvements are needed, and should be revised as necessary to take account of these.

12.4 Other Matters

Apart from the operations of the statutory authorities, the emergency response to an incident may require assistance from the event staff and any other voluntary organisation(s) present at an event, and from members of the public who can offer assistance. It is a matter for the statutory authorities to determine what assistance they require in any particular case.

The Event Controller may wish to communicate in coded messages with venue staff, and these messages should be scripted and tested. Messages should be short and clear. Persons making emergency announcements should work from a prepared script and should be experienced in doing so.



Other Provisions

13.1 Persons with Disabilities

The considerations dealt with in the general guidance contained in Chapter 12 of the Code of Practice for Safety at Outdoor Pop Concerts in relation to provisions for persons with disabilities apply equally with respect to the holding of indoor concerts.

Promoters should make suitable arrangements, in accordance with the general guidance, to enable people with disabilities to attend indoor concerts and other events wherever possible. In particular, the safety measures set out in the Codes of Practice should not be construed in such a way as to place undue restrictions on people with disabilities.

Regard must be had to the provisions of the Building Regulations in the case of new buildings and of extensions, alterations and certain changes of use of existing buildings. The guidance in Technical Guidance Document M which accompanies the Regulations is particularly relevant with respect to access for persons with disabilities.

13.2 Traffic Management

The staging of an indoor concert may affect road traffic and public transport before, during, and after the event. A proper co-ordinated plan may be needed to prevent disruption and inconvenience.

For very large events the Gardaí should prepare a traffic management plan in consultation with the Event Controller, the local authority and transport authorities. The plan will be dictated by the size of the event and the expected attendance and should include:

- diversion of traffic around the venue;
- parking restrictions and designation of tow-away areas;
- safe car parking facilities near the venue;
- access routes for emergency vehicles;
- signposting of routes to and from Bus/Railway Stations;
- designation of pedestrian zones;
- stands for Public Service Vehicles;
- placing of cordons to the best advantage of spectators; and
- provision of alternative routes for diverted traffic.

The Garda Síochána should send draft traffic management plans to the statutory undertakers (e.g. local authority, Bord Gáis, Telecom Éireann and the ESB) in advance of the event to guard against any activity being undertaken or authorised by these undertakers which could affect in any significant way, on the relevant dates and at the relevant times, these plans. If such activities, e.g. emergency road openings, are unavoidable, the Garda Síochána should immediately be notified by the statutory undertakers or other body concerned so that any necessary alteration can be made to the traffic management plan. The Promoter should also be warned of the position as should other parties involved in the planning process.

When the routes, parking places etc., have been decided upon, an estimate must be made by the Garda authorities of the Garda personnel required. The area must be divided into sectors and members placed in charge of each. Where necessary, provision should be made for a reserve party. The officer in charge will ensure that all members are properly instructed in their duties beforehand and that each member understands not only his/her own particular duty but the scheme as a whole. When the traffic plan is completed, particulars should be supplied to the Promoters of the event with a request to include the traffic plan in their publicity.

When a cordon is considered necessary Garda barriers will be erected along the approach roads and the area within the cordon pedestrianised. Local residents, local businesses, delivery men, and performers will require vehicular access beyond the Garda cordon, and passes showing the name of the driver and registration number of the vehicle will be issued by the Garda Síochána. Car parks that are located within the cordon area should be accessible only by means of a specific pass that is issued by the Promoter. A replica pass of the type to be used should be forwarded to the Gardaí for the information of the members on duty at each of the cordon points.

An order controlling access to the venue can be issued by the local Superintendent under Section 21 of the Criminal Justice (Public Order) Act, 1994, restricting access by persons and vehicles beyond the Garda cordon.

In the case that tickets are on sale on the day of the event at the venue, the Promoter should set up a ticket office for this purpose, positioned outside the cordon area. If possible, the exact location of this ticket office should be included in any press advertisements.

Diversions routes, suitable to carry the type and amount of traffic to be diverted, should be identified by the Gardaí. Parking on such routes should be prohibited. The erection of diversion, information and “no parking” signs will be arranged by the Gardaí as necessary. Car and coach parks provided by the Promoter should be well lit to reduce the possibility of accidents.

13.3 Public Transport

The Garda Síochána and transport authorities should discuss the expected times of arrival and departure of the audience and, as necessary, draw up a plan to include:

- provision of extra trains and buses;
- provision of shuttle buses if the venue is a good distance from Bus/Railway Stations;
- shuttle bus boarding/disembarkation points; and
- provision of information regarding times of shuttle buses, trains and coaches.

In some cases, tickets might be designed and priced to include a coach trip to and from the event.

13.4 Emergency Access Routes

The Promoter should ensure that clear access by emergency vehicles to the event will be available as required and that emergency access routes are clearly defined and outlined to the Gardai/stewards going on duty at the event. These routes should not be obstructed at any time and should afford easy and rapid access to the venue for emergency vehicles. Care should be taken to ensure that access for emergency services cannot be obstructed by persons attending or leaving the venue.

13.5 Noise and Sound

High sound levels at indoor concerts can create a risk to hearing for both the audience and staff members, though most members of an audience will not be exposed to high sound levels on a regular basis. Noise can also cause a nuisance in the neighbourhood of the venue.

Recommendations on sound levels are contained in the Guide to Health, Safety and Welfare at Pop Concerts and Similar Events, and Promoters should have regard to those recommendations.

In the case of employees regard must be had to the Safety, Health and Welfare at Work Act, 1989, and associated regulations which require measures to protect their safety and health. A system of rotation of duties should be introduced for staff in certain locations, in addition to other measures.

Venues where indoor events occur may have noise conditions attached in planning permissions, including times of operation and sound levels not to be exceeded at the boundary of the site. Any such planning conditions must be complied with by those running indoor concerts. Local authorities also have powers in Part VI of the Environmental Protection Agency Act, 1992, to require measures to be taken to prevent or limit noise from premises.

13.6 Litter Control

Litter control should be considered in the running of indoor concerts. A build-up of litter during an event, apart from the pollution it causes, may be indicative that problems in relation to the adequacy or effectiveness of the stewarding or in relation to crowd management are developing. The basic duty on occupiers of property to keep their premises free of litter is extended in the Litter Pollution Act, 1997, to include for areas in front of premises. The Act strengthens enforcement powers for local authorities to tackle the problem of litter pollution.

Under the Act, a local authority is empowered to serve a notice on the promoters or organisers of any event or series of events, at which large numbers of the public are likely to attend, requiring certain measures to be taken to prevent and control the creation of litter at such an event or events. The notice will specify the measures to be taken and the local authority may seek a bond for performance of the measures required. The promoter or organiser may, instead of carrying out the measures specified in the notice, opt to make a financial contribution to the local authority.

Robust bins, securely positioned, should be provided at appropriate areas of the venue (in concourses, at any food/drinks stall or dispenser etc.) and should be regularly emptied during an event. Litter in all public areas should be collected from time to time to prevent build-up. There should be a thorough clean-up as soon as possible after the event of all areas (auditorium etc.) inside the premises and outside areas in the vicinity of the premises.



13.7 Intoxicating Liquor

Enforcement of the liquor licensing laws is a matter for the Garda Síochána. The sale/supply of alcohol should not be permitted at indoor concerts other than in accordance with an existing licence authorising the sale of alcohol attached to the venue. In those circumstances, the sale/supply and consumption of alcohol should take place in an area adapted for that purpose. Only disposable drink utensils, such as plastic beakers and cups, should be used and consideration should be given to selling beers, stouts and soft drinks only. Members of the audience should not be allowed to take alcohol into the auditorium, and drunkenness on the premises should not be allowed.

The consumption of alcohol by those under age should not be permitted and, for events where the bulk of the expected audience is under 18 years of age, alcohol should not be sold at the venue.

13.8 Crime Prevention

The Gardaí may offer advice to concert promoters, owners of venues and other private property to which the public have access, on crime prevention measures. Any public notices pertaining to the event could advise the patrons on matters of security, for example:

- property should not be left exposed in vehicles;
- excessive amounts of cash should not be carried;
- approach/leave the venue on the main/well lit routes; and
- wallets, cash, tickets should be concealed in a pocket and not visible to the opportunist thief.

The Garda officer in charge may also arrange extra patrols around the venue in an effort to curb crime.

13.9 Casual Trading

The provisions of the Casual Trading Act, 1995, have to be enforced if trading without an appropriate licence is carried on in the vicinity of the venue. Such trading may cause obstruction to public roads and access and can impinge on public safety. Enforcement powers are provided for the Garda Síochána and for officers authorised by the local authority (see Section 14.14).

14.1 Introduction

There are a number of statutory codes which may apply in relation to the holding of indoor concerts and similar events and to the venues in which such events are held. This Chapter outlines the main statutory provisions that may apply in this regard. These provisions are described briefly and Promoters should obtain their own legal advice in order to ascertain the precise legal position in any case. The guidance expressed does not purport to amount to legal advice nor to legal interpretation of the legislation referred to.

14.2 Licensing

Premises used for indoor concerts may be subject to licensing or registration under a number of statutory codes. If the premises concerned are ordinarily used for music, singing or other public entertainment a licence must be obtained in certain urban areas in which Part IV of the Public Health Acts Amendment Act, 1890, has been adopted by the urban authority. Promoters should consult with the relevant urban authority for information as to whether or not Part IV of the Act has been adopted locally. Under the Public Dance Halls Act, 1935 as amended by the Licensing (Combating Drug Abuse) Act, 1997, a licence is required for any place where public dancing is proposed to take place. This requirement would apply in relation to indoor events where dancing takes place. Licences under these Acts are obtainable from the District Court and conditions may be imposed limiting the numbers to be admitted and specifying precautions to be observed in relation to crowd control and similar matters. These licences are renewable on an annual basis. There is provision for the granting of temporary licences in respect of music and singing or public dancing for 14 days (or less) and one month (or less) respectively.

Clubs must be registered in accordance with the provisions of the Registration of Clubs Act, 1904 to 1995. While no licence is required for the sale of liquor in a registered club, the sale must be to a member and other restrictions in the Licensing Acts, 1833 to 1995, apply. The certificate of registration is obtainable from the District Court and is renewable annually.

14.3 Licensing (Combating Drug Abuse) Act, 1997

The Licensing (Combating Drug Abuse) Act, 1997 provides for measures to combat drug abuse in places used for public dancing, licensed premises and other places of entertainment and also provides the Gardaí with powers to prevent drug abuse at unlicensed dances. Specifically, the Act provides for the disqualification of any person convicted of a drug trafficking offence for ever from obtaining an intoxicating liquor, public dancing or public music and singing licence, the revocation of an intoxicating liquor public dancing or public music and singing licence held by any person who is convicted of a drug trafficking offence and the revocation of an intoxicating liquor public dancing or public music and singing licence held by any person who permits or suffers the use of the place in respect of which the licence was granted for the sale, supply or distribution of any controlled drug or does not exercise control over the place to prevent such activities. The Act also gives Gardaí powers to direct persons to leave a place where an unlicensed dance is being prepared or is in progress and to stop persons from proceeding to unlicensed dances.

In addition, the Act amends the Public Dance Halls Act, 1935 by extending the definition of a place for which a public dancing licence may be granted and by providing for increased penalties for breaches of a public dancing licence. The Act also amends the Public Health Acts Amendment Act, 1890 by providing for increased penalties for breaches of a licence under that Act.

14.4 Intoxicating Liquor

Where intoxicating liquor is on sale at indoor concerts, the premises must be licensed for that purpose under the provisions of the Licensing Acts, 1833 to 1995.

Under these Acts, the holder of a licence for the sale of intoxicating liquor shall not:

- sell or deliver or permit any person to sell or deliver intoxicating liquor to a person under the age of 18 years;
- sell or deliver or permit any person to sell or deliver intoxicating liquor to a person for the consumption on his licensed premises by a person under the age of 18 years;
- permit a person under the age of 18 years to consume intoxicating liquor on his licensed premises; or
- permit any person to supply a person under the age of 18 years with intoxicating liquor on his licensed premises.

Furthermore, it is unlawful for the holder of a licence of any licensed premises to allow a child (defined for the purposes of the Licensing Acts as a person under the age of 15 years) to be in the bar of his licensed premises at any time (other than a time during which the sale of intoxicating liquor is prohibited) unless such a child is accompanied by his/her parent or guardian.

Section 37 of the Intoxicating Liquor Act, 1988, empowers Gardaí to confiscate alcohol in the possession of a person under 18 years of age in a place other than a place used as an occupied private residence.

In the case of exemption orders, which have the effect of extending trading into normally prohibited hours, the holder of a licence of any licensed premises shall not allow a person who is under the age of 18 years (other than a person under that age whose employment in the licensed premises is not prohibited under Section 38 of the Intoxicating Liquor Act, 1988) to be on that part of the licensed premises which is used on foot of such exemption orders for the sale or consumption of intoxicating liquor at any time during the period in respect of which the exemption was granted.

14.5 Fire Services Act, 1981

The Fire Services Act, 1981, places a duty on every person having control over certain premises to take all reasonable measures to guard against the outbreak of fire on the premises, and to ensure, as far as is reasonably practicable, the safety of persons on the premises in the event of an outbreak of fire. The Act also places a duty on any person on the premises to conduct himself or herself in such a way as to ensure that any person is not exposed to danger from fire as a consequence of his or her behaviour. A wide range of premises is encompassed by these provisions including premises put to such uses as dance halls, discotheques, night clubs, cinemas, theatres, concert halls, public houses etc.

The Act provides certain enforcement powers for fire authorities in relation to fire safety, including power to inspect buildings and to serve fire safety notices (which may be appealed) on the owner or occupier prohibiting the use of all or part of a building for specified purposes either absolutely or until specified precautions are taken (a limited

number of buildings are exempt). Fire safety notices may impose a wide range of other requirements on owners or occupiers. Provision is made also for recourse by a fire authority to the High Court in certain cases for an order restricting or prohibiting the use of any land or building until specified measures are carried out to reduce to a reasonable level the risk to persons in the event of a fire.

Under the Act, an applicant for certain licences and certificates (including licenses in respect of premises under the Public Dance Halls Act, 1935, or under Part IV of the Public Health Acts Amendment Act, 1890, and certificates under the Registration of Clubs Act, 1904 to 1995), is required to give one month's notice in writing (or such shorter period as the authority may agree to accept in the special circumstances of a case) of the application to the fire authority and the authority is entitled to appear and present evidence at the hearing of the application.

14.6 Ease of Escape Regulations, 1985

Regulations made under the Fire Services Act, 1981, include the Fire Safety in Places of Assembly (Ease of Escape) Regulations, 1985. These Regulations provide that in specified places of assembly certain fire safety precautions relating to escape routes and exit doors should be taken by every person having control over a place of assembly and that a person in a place of assembly should not prevent or obstruct the person in control from complying with the Regulations. The Regulations are expressed to encompass a wide range of buildings including cinemas, theatres, concert halls, dance halls, discotheques, clubs and public houses.

14.7 Means of Ingress and Egress

Under Section 36 of the Public Health Acts Amendment Act, 1890, every building used as a place of public resort must be substantially constructed and supplied with ample, safe and convenient means of ingress and egress to the satisfaction of the local authority. The means of ingress and egress must be kept free and unobstructed to such extent as the local authority (fire authority in the case of means of egress) requires. These provisions apply to venues used for indoor concerts. Section 53 of the Local Government (Sanitary Services) Act, 1948, extended the terms of Section 36 of the 1890 Act to every sanitary district, urban or rural.

14.8 Temporary Structures

Section 37 of the Public Health Acts Amendment Act, 1890 refers to the safety of platforms, etc., erected or used on public occasions. It requires that whenever large numbers of persons are likely to assemble on the occasion of any show, entertainment, public procession, open air meeting or other like occasion, every roof of a building and every platform, balcony or other structure or part thereof to be let or used for the purpose of affording sitting or standing accommodation for a number of persons shall be safely constructed or secured to the satisfaction of the local authority. Section 53 of the Local Government (Sanitary Services) Act, 1948 has extended the terms of Section 37 of the Public Health Acts Amendment Act, 1890 to every sanitary district whether urban or rural.

14.9 Planning Acts, 1963 to 1993

Development consisting of the making of a material change in the use of land or the carrying out of works requires planning permission under the Local Government (Planning and Development) Acts, 1963 to 1993, unless the development has exempted development status under those Acts or their associated regulations. Development has to comply with any conditions that may be attached to a planning permission.



14.10 Building Control Act, 1990

The Building Control Act, 1990, provides a statutory basis for the Building Regulations which are a set of basic requirements to be observed in the design and construction of buildings. These Regulations promote good practice in design and construction in the interest of the health, safety and welfare of persons who use buildings. They apply to new buildings and also to extensions, material alterations and certain changes of use of existing buildings. The Regulations detail the legal requirements which buildings have to meet in functional statements in relation to the following matters:-

Part A	Structure;
Part B	Fire Safety;
Part C	Site Preparation and Resistance to Moisture;
Part D	Materials and Workmanship;
Part E	Sound;
Part F	Ventilation;
Part G	Hygiene;
Part H	Drainage and Waste Disposal;
Part J	Heat Producing Appliances;
Part K	Stairways, Ladders, Ramps and Guards;
Part L	Conservation of Fuel and Energy; and
Part M	Access for Disabled People.

Technical Guidance Documents have been published for the purpose of providing guidance on how to comply with the requirements of the Regulations. For the purpose of the Regulations a venue used for concerts would be regarded as a “place of assembly”.

Building Control Regulations provide for further control arrangements, in particular providing for a Fire Safety Certificate and a Commencement Notice. A Fire Safety Certificate is required for all new buildings as well as for changes of use and most alterations and extensions to which Building Regulations apply with certain exemptions. A Fire Safety Certificate must be obtained from a building control authority before work commences. A Commencement Notice is prior notification to a building control authority that a person intends to carry out building work to which the Building Regulations apply.

14.11 Safety, Health and Welfare at Work Act, 1989

The fundamental aim of the Safety, Health and Welfare at Work Act, 1989, is the prevention of accidents and ill health at the place of work. The Act, which applies to all employers, employees and the self-employed, sets out general duties of care for each of these parties.

The general duties set out in Section 6 of the Act apply to employers and broadly reflect in criminal legislation the established common law principles to facilitate a preventive approach to occupational safety and health based on these general concepts. Section 7 requires every employer to conduct the undertaking so as to ensure, so far as is reasonably practicable, that persons not employed by her/him, but who may be affected by the undertaking, are not exposed to risks to their safety or health in connection with the activities of persons at work.

Under the Act, employers are required to identify the hazards and assess the risks in the place of work, and to draw up a written Safety Statement setting out the arrangements in place to safeguard the safety and health of employees, along with the co-operation

required from employees to achieve this. The Safety Statement is the basis on which every employer must manage the safety and health of employees, taking account of the various requirements in health and safety legislation. The Health and Safety Authority has published detailed guidelines on Safety Statements.

Designers, manufacturers, suppliers and importers of articles and substances for use at work and those who design or construct places of work also have general duties under the Act and its associated Regulations.

The Safety, Health and Welfare at Work (General Application) Regulations, 1993, implement certain EU directives on safety at work. Under the Regulations, employers have emergency duties, including the provision of evacuation arrangements, contacts with the emergency services, as well as other duties such as requirements relating to the stability of structures, ventilation, manual handling, electricity, first aid, personal protective equipment, notification of certain accidents and dangerous occurrences, keeping of records, examination and tests, etc.

Safety or health signs must be provided in all places of work in accordance with the provisions of the Safety, Health and Welfare at Work (Signs) Regulations, 1995. Signs must be used wherever there is a risk or hazard that cannot be adequately controlled by other means and the Regulations set out the essential characteristics to be incorporated in the signs. Aspects to which signs may refer include emergency escape and evacuation routes, fire-fighting and first aid etc.

Further information on any of these provisions is available from the Health and Safety Authority, 10 Hogan Place, Dublin 2.

14.12 Civil Liability

Employers, including promoters of events, will be familiar with the increased cost of public liability insurance. This has arisen as a result of awards made in the civil Courts to people who have been injured. The Courts have taken the view that it is the duty of the employer to provide a reasonably safe workplace. Traditionally, awards are made where 'reasonable standards' are not met. The onus or general duty is on employers to provide:

- (i) reasonably safe systems of work;
- (ii) reasonably competent staff, including supervisors capable of providing adequate supervision in any given situation;
- (iii) a reasonably safe place of work; and
- (iv) reasonably safe plant and machinery.

14.13 Criminal Justice (Public Order) Act, 1994

Under Part III of this Act the Gardaí have power to control access to certain events and to allow for surrender and seizure of intoxicating liquor, etc. The Gardaí may erect barriers on any road, street, lane or alley not more than one mile from the venue in which an event is taking place. A Garda has power to divert persons and, where possession of a ticket is required for entrance to the event, to prohibit people who have no tickets from passing the barrier. Powers are also provided to search a person going to an event and

to



seize any intoxicating liquor, disposable container or any other article which could be used to cause injury.

The provisions of the Act relating to public order offences are designed to ensure good order and have implications for the general public, the Gardaí, promoters and event controllers as well as stewards and others concerned with public safety. Under the Act, the definition of “public place” includes “any premises or other place to which, at the material time, members of the public have, or are permitted to have access, whether as of right or by express or implied permission or whether on payment or otherwise”. The Act should be consulted on matters relating to the preservation of public order.

14.14 Casual Trading

The Casual Trading Act, 1995, provides for the regulation and control of casual trading (defined as selling goods at a place (including a public road) to which the public have access as of right or at any other place that is a casual trading area). Under the Act, a person may not engage in casual trading unless a casual trading licence is held.

Licences are obtainable from the local authority concerned which has power to make byelaws for the control of trading in its functional area. Enforcement powers are provided for the Garda Síochána and for officers authorised by the local authority.

14.15 Sale of Food

The Food Hygiene Regulations, 1950 to 1989, provide for licensing and other hygiene requirements for food/stalls where meat or meat products are sold or where food is prepared, cooked or heated for direct sale to the public for consumption. Licences are obtainable from Health Boards, and enforcement powers are provided under the Health Act, 1947, for Health Boards and the Garda Síochána.

14.16 Children Act, 1908 - Children Bill, 1996

The Children Act, 1908 provides that where an entertainment for children or any entertainment at which the majority of the persons attending are children is provided, and the number of children who attend the entertainment exceeds one hundred, and access to any part of the building in which children are accommodated is by stairs, it shall be the duty of the person who provides the entertainment to station and keep stationed wherever necessary a sufficient number of adult attendants, properly instructed as to their duties, to prevent more children or other persons being admitted to any such part of the building than that part can properly accommodate, and to control the movement of the children and other persons admitted to any such part while entering and leaving, and to take all other reasonable precautions for the safety of the children. The Act also provides that a member of the Garda Síochána may enter any building in which he or she has reason to believe that such an entertainment as aforesaid is being, or is about to be, provided with a view to seeing whether these provisions are carried into effect.

These provisions are being re-enacted and updated in the Children Bill, 1996.

14.17 Litter Control

The Litter Pollution Act, 1997, provides, inter alia, that local authorities will be able to require the promoters or organisers of major events at which large numbers of the public are likely to attend to take measures to prevent and control litter before, during and after the event at the location concerned and in the surrounding vicinity.

Documents Referred to in the Code

Reference Standards

Irish Standards (National Standards Authority of Ireland)

I.S. 3217: 1989 Code of Practice for Emergency Lighting

I.S. 3218: 1989 Code of Practice for Fire Detection and Alarm Systems for Buildings
- System Design, Installation and Servicing

British Standards (British Standards Institution)

BS 5306: Part 2: 1990 Specification for sprinkler systems

BS 5588: Part 6: 1991 Code of practice for places of assembly

BS 5810: 1979: Code of practice for access for the disabled to buildings

BS 5973: 1993 Code of practice for access and working scaffolds and special
scaffold structures in steel

BS 6190: 1995 Code of practice for barriers in and about buildings

BS 6399: Part 1: 1996 Code of practice for dead and imposed loads

BS 6465: Part 1: 1994 Code of practice for scale of provision, selection and
installation of sanitary appliances

Reference Legislation

Statutes

Building Control Act, 1990

Casual Trading Act, 1995

Children Act, 1908

Children Bill, 1996

Criminal Justice (Public Order) Act, 1994

Environmental Protection Agency Act, 1992

Explosives Act, 1875

Fire Services Act, 1981

Health Act, 1947

Licensing Acts, 1833 to 1995

Licensing (Combating Drug Abuse) Act, 1997

Litter Pollution Act, 1997

Local Government (Planning and Development) Acts, 1963 to 1993

Local Government (Sanitary Services) Act, 1948

Public Dance Halls Act, 1935

Public Health Acts Amendment Act, 1890

Registration of Clubs Acts, 1904 to 1995

Safety, Health and Welfare at Work Act, 1989

Regulations

Building Control Regulations, 1997

Building Regulations, 1997

European Communities (Quality of Water Intended for Human Consumption) Regulations, 1988

Fire Safety in Places of Assembly (Ease of Escape) Regulations, 1985

Food Hygiene Regulations, 1950 to 1989

Safety, Health and Welfare at Work (General Application) Regulations, 1993

Safety, Health and Welfare at Work (Signs) Regulations, 1995

Tobacco (Health Promotion and Protection) Regulations, 1995

Reference Guides

Building Regulations, 1997 - Technical Guidance Documents (The Stationery Office, Dublin 1991)

Code of Practice for Fire Safety of Furnishings and Fittings in Places of Assembly
(The Stationery Office, Dublin 1991)

Code of Practice for the Management of Fire Safety in Places of Assembly
(The Stationery Office, Dublin 1989)

Code of Practice for Safety at Outdoor Pop Concerts (The Stationery Office, Dublin 1996)

Code of Practice for Safety at Sports Grounds (The Stationery Office, Dublin 1996)

Guide to Fire Precautions in Existing Places of Entertainment and Like Premises
(London: H.M.S.O. 1994)

Guide to Health, Safety and Welfare at Pop Concerts and Similar Events (London: H.M.S.O. 1993)

Other Reference Documents

Appraisal of Existing Structures (Institution of Structural Engineers London)

National Rules for Electrical Installations (ET 101) (Electro-Technical Council of Ireland)

National Rules for Electrical Installations : Particular requirements for standby generators
(ET 104 and ET 104A) (Electro-Technical Council of Ireland)

Temporary Demountable Structures : Guidance on Procurement, Design and Use
(Institution of Structural Engineers, London)

The Causes and Prevention of Crowd Disasters, J.J. Fruin (Paper to International
Conference on Engineering for Crowd Safety London 1993)

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