



Code of Practice for

Safety at Outdoor Pop Concerts

and other outdoor musical events



*Department of Education
January, 1996*



An Roinn Oideachais
Department of Education

Code of Practice for

Safety at Outdoor Pop Concerts

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Foreword

Background to the Preparation of the Code of Practice for Safety at Outdoor Pop Concerts and other Outdoor Musical Events

1. Following the tragedy at Hillsborough Football Stadium in 1989, the Government appointed the Committee on Public Safety and Crowd Control under the Chairmanship of the Honourable Mr. Justice Liam Hamilton to look at all aspects of Public Safety at major public events, music festivals and concerts. The Committee completed its report in February, 1990.
2. The Government decided that the Minister of State at the Department of Education should have responsibility for dealing with the Committee's key proposals.
3. One of the main recommendations of the Committee was that a formal Code of Practice for Safety at Sports Grounds be prepared.
4. The Committee also expressed concern about many aspects of pop concerts and recommended that consideration should be given to the preparation of an adequate technical Code of Practice for front-of-stage barriers.
5. A Working Party was appointed under the auspices of the Department of Education to prepare Codes of Practice for Safety at Sports Grounds and Outdoor Pop Concerts and Other Outdoor Musical Events.
6. The composition of the Working Party was as follows:-

Mr. Paddy Quinlan, Chairman,
Principal Officer,
Dublin Corporation.

Mr. Leo Crehan,
Senior Building Surveyor,
Dublin Corporation.

Chief Supt. Michael Francis,
Fitzgibbon Street Garda Station.

Mr. Con Haugh,
Principal Officer,
Department of Education.

Mr. Tom McDonald,
Chief Fire Officer,
Dun Laoghaire Corporation.

Mr. Denis Wall,
Senior Executive Structural Engineer,
Dublin Corporation.

Mr. Marc Howard, was Secretary to the Working Party and
Ms. Eileen Connaire, was Acting Secretary.

7. As some elements of the Code of Practice for Safety at Sports Grounds will apply to pop concerts, especially those held at sports grounds, this Code should be read in conjunction with the former.
8. **Legal Obligations**
Compliance with this Code of Practice does not, of itself, confer immunity from legal obligations on Ground Managements, Promoters or Organisers of events. The Department of Education 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 recommendations of the Code of Practice.

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The Department is grateful for the assistance of the following in the preparation of the Codes:

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Concerts South
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Cumann Lúthchleas Gael
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Dublin Corporation
Dún Laoghaire-Rathdown County Council/ Dún Laoghaire Corporation
Eastern Health Board
Eolas/Forbairt
Fire Research and Education Council of Ireland
Fire Safety Standards Committee, National Standards Authority of Ireland
Garda Síochana
Gar Holohan & Associates
Health & Safety Authority
Horgan, Lynch and Partners
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Greater Manchester Police
Health & Safety Executive, London
Home Office, London
Institution of Structural Engineers, London

John Shaugnessy, Harrow, Middlesex
London Fire Brigade and Civil Defence Authority
Manchester City Council
Manchester City Football Club
University of Manchester, Department of Engineering
Wembley Stadium, London

Introduction

- 1.1 The object of the Code of Practice is to give guidance to Ground Managements, Event Promoters, Local Authorities, Gardaí, Health Boards and technical and professional specialists to assist them in assessing how patrons can be accommodated safely within a sports ground or at other outdoor venues used for pop concerts and other musical events. The Code of Practice for Safety at Sports Grounds¹ outlines measures for improving safety at sports grounds and many of these measures, with certain modifications, will apply to pop concerts.
- 1.2 The safety of the public in places of assembly is the responsibility of those who organise the event and who administer or own the ground or venue in which it is held. This arises from the common law duty of care owed by those in charge of the venue to the patrons who pay to attend the event. It is the joint responsibility of the Ground Management and the Promoter to ensure that standards and requirements for safety at pop concerts are strictly observed before, during and after the event. The division of responsibilities between Ground Management and the Promoter of the concert should be clearly defined, agreed and recorded before the event; this must include public liability and other relevant insurances. In this Code of Practice the person responsible for safety at the concert will be referred to as the Promoter.
- 1.3 The Guidelines in this Code will not restrict in any way the right of statutory bodies to insist on certain conditions being met which are not covered by this Code if they consider it reasonable to do so. This Code is an aid to technical and professional specialists. It is not a substitute for professional judgement and common sense.
- 1.4 The problems associated with pop concerts are not unlike those experienced at sporting events. These relate to underfoot conditions, crowd pressures, emergency evacuation, danger of fire and possible structural failure. Significant additional dangers arise at pop concerts from crowd pressures at front-of-stage. These dangers can be overcome by good site management, care, maintenance, taking fire precautions and applying the standards set out in this Code of Practice and, where applicable, the Code of Practice for Safety at Sports Grounds.¹

- 1.5 Sports grounds are frequently used as venues for pop concerts because of their relatively large capacity and the ease of monitoring the attendance. The suitability of a stadium for sports events does not automatically mean that it will be equally suitable for a pop concert. The crowd at a sports event is relatively static during the event and is accommodated in sections of the stadium which have their own ingress and egress systems. Crowds at pop concerts and other musical events are usually mobile having access to most parts of the ground including the playing pitch.

Consequently, while entrances can be controlled there is less control over egress. Specific arrangements will be required regarding ingress to and egress from the pitch area, toilet accommodation and stewarding. The method of determination of crowd capacity will have to be reappraised.

- 1.6 The nature of the entertainment provided at concerts has changed considerably over the years. Such changes present special problems which impinge on safety. These include the materials used for scenery and decoration, special stage effects, audience participation, crushing near the stage, effects of over excitement and, quite often, hysteria among younger audiences.
- 1.7 In addition to that of spectators, the health and safety of performers, stewards and those engaged in organising the event must be catered for in accordance with the provisions of the Safety, Health and Welfare at Work Act, 1989.²
- 1.8 Throughout this Code all references to pop concerts will include other outdoor musical events. A pop concert is defined as an event at which music is performed by an artist(s) before a live audience. It can consist of Pop or other types of music. A pop festival consists of a series of such events extending over successive days.
- 1.9 While this Code is designed for outdoor pop concerts the parameters for the good organisation of an indoor pop concert are basically similar to outdoor events. These include proper preplanning of the event, organisation and staffing including stewarding, the stage, safe holding capacity, front of stage barriers, noise, traffic management, entry to premises, spectators with disabilities, crowd management, means of escape and exit routes, medical facilities, first-aid and ambulances, emergency planning, fire precautions and safety measures, temporary structures, public address system, sanitary accommodation, electrical installation, auxiliary power and emergency lighting, sale of food, etc.
- 1.10 While primarily designed for pop concerts certain elements of the guidance in this Code may be useful in assessing safety aspects at other events where large crowds have to be accommodated. Useful guidance is contained in a recent UK publication.³

References

1. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.
2. Safety, Health and Welfare at Work Act, 1989, Stationery Office, Dublin.
3. Code of Practice for Outdoor Events, other than Pop Concerts and Raves, The National Outdoor Events Association, Wallington, England, 1993.

Legislation – Open Air Pop Concerts

Music and Singing Licence

- 2.1 If the premises being used for a concert are ordinarily used for public music and singing a licence is required in certain urban areas in which Part IV of the Public Health Acts Amendment Act, 1890¹ has been adopted by the Urban Authority. Section 51 of the Act, as restricted by the Public Dance Halls Act, 1935,² (Section 14) and as amended by the Courts (Supplementary Provisions) Act, 1961,³ (Section 33), provides that any house, room, garden or other place, whether licensed or not for the sale of intoxicating liquor, shall not be kept or used for public dancing, singing, music or other public entertainment of the like kind without a licence granted for that purpose by a District Court Judge. Promoters should consult with the relevant local Authority for information as to whether or not Part IV of the Act has been adopted locally.

In the case of a new licence 14 days notice must be given to the Court Clerk and local Garda Superintendent. Only 48 hours notice to the Court Clerk is required for a renewal of a licence and for a temporary licence (not exceeding 14 days) 48 hours notice to the Court Clerk and Garda Superintendent is required. Under the Fire Services Act, 1981⁴ (Section 24) an applicant for any licence is required to give one month's notice in writing (or such shorter period of notice as the Fire Authority may in the special circumstances of the case agree to accept) of the application to the Fire Authority.

It should be pointed out that there is no licence other than a music and singing licence required for outdoor pop concerts. This licensing system only applies to venues **ordinarily** used for outdoor pop concerts. If **not ordinarily** used for this purpose a music or singing licence may not be required.

Promoters should consult with their legal advisers in order to ascertain the legal position applicable to each particular event.

Fire Services Act, 1981⁴

- 2.2 The primary legislation governing fire safety in Ireland is the Fire Services Act, 1981. A Fire Authority can serve a fire safety notice which

may prohibit the use of a building or a part of a building until specified precautions are taken to the satisfaction of the Fire Authority.

This Act places a duty on every person having control over such premises to take all reasonable steps to guard against the outbreak of fire on such premises and to ensure, as far as reasonably possible, the safety of persons on the premises in the event of fire. A person who fails to fulfil his statutory obligations in this regard is guilty of an offence for which the maximum fine is £10,000 or imprisonment for a term not exceeding two years or both penalties at the discretion of the Court.

In addition, where the Fire Authority considers that the risk to persons in the event of fire is sufficiently serious it may apply to the High Court for an Order restricting or prohibiting the use of the land or building until specified measures have been taken to reduce the risk to a reasonable level.

Ease of Escape Regulations

- 2.3 Regulations made under the Fire Services Act, 1981 include the Fire Safety in Places of Assembly (Ease of Escape) Regulations 1985.⁵ These Regulations provide that in specified places of assembly, including a stadium, tent or marquee, certain fire safety precautions related 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 shall not prevent or obstruct the person in control from complying with the regulations.

Temporary Structures

- 2.4 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, 1948⁶ has extended the terms of Section 37 of the Public Health Acts Amendment Act of 1890 to every sanitary district whether urban or rural.

The Local Government (Planning and Development) Acts, 1963-1993⁷

- 2.5 Development consisting of the making of a material change in the use of land or the carrying out of works needs planning permission under the Local Government (Planning and Development) Acts, 1963-1993, unless the development has exempted development status under those Acts or their associated Regulations.

Safety, Health and Welfare at Work Act, 1989⁸

- 2.6 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.

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 safety and health, along with the co-operation required from employees to achieve this.

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.

Section 7 (1) of the Act 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.

Civil Liability

- 2.7 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.

The obligation to take reasonable precautions is set at the same level of responsibility by the civil courts in relation to non-employees. Non-employees may include contractors, their employees, lawful visitors (paying spectators/patrons) or even trespassers.

Sale of Food

- 2.8 Food Stalls require a Health Board licence or an Occasional Food Permit under the Food Hygiene (Amendment) Regulations, 1989⁹ and stall holders must comply with these regulations to the satisfaction of the Health Board. Power is given to the Chief Executive Officer of a Health Board to apply to the District Court for a Closure Order prohibiting the operation of a food business from a food premises, stall or vehicle where there is grave and immediate danger to the public. Health Boards have powers under the Health Act, 1947¹⁰ to demand names and addresses and to detain those refusing to give such names and addresses or giving false ones. Gardai have powers under the Act to detain people for a maximum period of 24 hours at a Garda Station and to carry out the necessary inspections, by force if necessary. Gardai must comply with a request to assist Health Board officials in carrying out this function.

Casual Trading Acts¹¹

- 2.9 The provisions of the Casual Trading Act, 1995, which repeals the Casual Trading Act, 1980, with effect from 1st May, 1996, apply to persons who carry out casual trading, i.e. selling goods at a place (including a public road) to which the public have access as of right or any other place that is a casual trading area.

Criminal Justice (Public Order) Act, 1994¹²

- 2.10 The Act provides inter alia for;
- (a) the updating of the law in relation to public order offences; and
 - (b) the implementation of certain recommendations made by the Committee on Public Safety and Crowd Control.¹³
- 2.11 Part III of the Act (Sections 20, 21 and 22) is along the lines of recommendations made by the aforesaid Committee in relation to giving the Gardai power to control access to certain events and to allow for surrender and seizure of intoxicating liquor, etc. Section 20 provides for definitions for this part of the Act. Section 21 provides for the erection by Gardai of 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. Section 22 provides the Gardai with

powers to search a person going to an event for intoxicating liquor and to seize any such liquor, disposable container or any other article which could be used to cause injury.

- 2.12 The Sections of the Act relating to public order offences are designed to ensure good order. The terms of the Sections have implications for the general public, the Gardai, promoters and event controllers as well as stewards and others concerned with public safety. Under the Act, the definition of “public place” includes-
- (a) any highway,
 - (b) any outdoor area to which, at the material time, members of the public have or are permitted to have access, whether as a right or as a trespasser or otherwise, and which is used for public recreational purposes,
 - (c) any cemetery or churchyard,
 - (d) 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, and
 - (e) any train, vessel or vehicle used for the carriage of persons for reward.

The Act should be consulted for matters relating to the preservation of public order.

Licensing

- 2.13 Pending a decision in this matter, it is recommended that the details set out in this Code of Practice be used in a voluntary manner by those engaged in the organisation of outdoor pop concerts. Appropriate legislation requiring pop concerts to be licensed is currently under consideration in the Department of Justice.

Litter Control

- 2.14 New statutory provisions to give Local Authorities additional powers to set down specific litter prevention and control requirements to be observed by the Promoters of events are currently being examined by the Department of the Environment and will be outlined in a new Litter Bill.

Legal Advice

- 2.15 The guidance expressed in this Chapter does not purport to amount to legal interpretation or legal advice. Promoters/Grounds Management are advised to consult their legal advisors on such matters beforehand.

References

1. Public Health Acts Amendment Act, 1890, HMSO, London.
2. Public Dance Halls Act, 1935, Stationery Office, Dublin.
3. Courts (Supplementary Provisions) Act, 1961, Stationery Office, Dublin.
4. Fire Services Act, 1981, Stationery Office, Dublin.
5. Fire Safety in Places of Assembly (Ease of Escape) Regulations, 1985, Stationery Office, Dublin.
6. Local Government (Sanitary Services) Act, 1948, Stationery Office, Dublin.
7. Local Government (Planning and Development) Acts, 1963-1993, and associated Regulations, Stationery Office, Dublin.
8. Safety, Health & Welfare at Work Act, 1989, Stationery Office, Dublin.
9. Food Hygiene (Amendment) Regulations, 1989, Stationery Office, Dublin.
10. Health Act, 1947, Stationery Office, Dublin.
11. Casual Trading Act, 1995, will repeal the Casual Trading Act, 1980, with effect from 1st May, 1996, Stationery Office, Dublin.
12. Criminal Justice (Public Order) Act, 1994, Stationery Office, Dublin.
13. Committee on Public Safety and Crowd Control: Report, February, 1990, Stationery Office, Dublin.

Open Sites

General

- 3.1 The guidelines set out in this Code of Practice refer mainly to concerts held in enclosed outdoor venues such as sports grounds. Nevertheless, the principles of the Code can be applied, in many respects, to pop concerts held in open sites. With such venues it would be difficult to apply the Code in all respects because of different conditions prevailing. While many of the provisions of the Code would apply to such venues, some will not and in these circumstances, the organisers of the event must show where alternative safety arrangements can be made, following discussions with the Local Authority, Gardaí and Health Board. Safety arrangements would depend on the nature of the overall area, including the inner viewing area, type of surface, whether level or sloping, and exits.

Free Pop Concerts

- 3.2 The principles outlined in this Code of Practice will also apply to free pop concerts held in public parks or elsewhere. At such venues there may be difficulty in ensuring that the safe holding capacity is not exceeded. To this end it will be necessary for the Promoter to issue free tickets or tickets at a nominal cost in respect of the event. The distribution of tickets should be completed in advance of the day of the event. This is only likely to apply if a crowd in excess of 70% of predetermined safe holding capacity is expected.
- 3.3 If the event is held in a large public park, where there are extensive areas of land for patrons to spread out on, the potential for overcrowding will be reduced. The Office of Public Works should be consulted in relation to lands under their aegis. If a particularly attractive band were to perform in such an open site the difficulties regarding crowd management and control increase. An estimate of the expected crowd must be determined in order that safety arrangements, including the stewarding of barriers, particularly at the front-of-stage, can be put in place.
- 3.4 The type of artists will also determine the extent of safety precautions required. The primary area of danger is at front-of-stage where crowd

pressure is greatest. If large crowds are expected very careful preplanning must be carried out. Such preplanning should include consideration of the type of front-of-stage barriers required. This should be decided in consultation with the Local Authority, Gardaí and with agreement of the Health Board. Where appropriate the relevant Voluntary Aid Organisations¹ should be consulted. Guidance on barriers is contained in Chapter 8 of this Code.

- 3.5 Service Areas will be required at a number of locations on the periphery of the site. Each service area should contain a First-Aid Point, Information Desk, Hot Food Franchise, Soft Drink Franchise, Toilets, Water Points, etc.. The extent and siting of these Service Areas should be decided following consultation with the Local Authority, Gardaí and the relevant Voluntary Aid Organisation(s) and with agreement of the Health Board.
- 3.6 Access routes must be laid out with suitable barriers which cannot be overturned. They should be kept free of patrons and be available for use by ambulances and by first-aid and emergency services. Careful consideration should be given to the arrangement for these access routes to ensure that they do not create further crowd control problems.
- 3.7 A traffic management plan should be prepared in accordance with the guidance set out in Chapter 10.

Reference

1. See Glossary – Appendix D.

Organisation and Staffing

Event Controller

- 4.1 An Event Controller should be appointed by the Promoter for each concert. S/he should be of sufficient competence, status and authority to take full responsibility on the day of the event for all matters relating to the event including safety at the site. S/he should be easily identifiable by her/his clothing, and should be known to staff and Gardai on duty at the event. S/he will be assisted inside the stadium by the Gardai, Stewards and all other personnel, whether paid or voluntary, but will retain control unless a serious emergency occurs, at which time s/he will hand over responsibility to the Emergency Controller (See Appendix A). S/he should, at all times, be in contact with the Event Safety Officer, the Chief Steward and the Emergency Services.
- 4.2 Among the responsibilities of the Event Controller are:-
- (i) having overall responsibility for the management of the event;
 - (ii) being involved in the planning meetings with the relevant authorities, i.e., Local Authority, Gardai, Health Board, etc.;
 - (iii) ensuring the provision of adequate personnel for the event (stewards, gatemen, stilesmen, etc.) including first-aid and medical personnel;
 - (iv) remaining at the Central Control Room before, during and immediately after an event; and
 - (v) conducting a post event meeting on the event and preparing a resulting report.

The Promoter should also appoint a Deputy Event Controller of equal status and competence to the Event Controller.

All staff should be aware of the location of the Central Control Room, know the identity of the Event Controller and be familiar with the lines of communication.

Event Safety Officer

- 4.3 An Event Safety Officer should be appointed by the Promoter of the concert in respect of each event. S/he should have sufficient status, competence and authority to take sole responsibility for safety.

S/he should ensure that the safety details and conditions agreed for the holding of the concert are implemented and that clearly defined terms of reference for her/his post should be set out in the Promoter's brief. S/he should be present on the site when the stage, barriers and other temporary structures are being erected to ensure that work, materials and site layout and safety arrangements are in accordance with specifications and agreements, in so far as they impinge on safety matters.

The Event Safety Officer must:

- (i) be present at all planning meetings;
- (ii) act as co-ordinator on behalf of the Promoter;
- (iii) act as co-ordinator of the technical aspects of the arrangements insofar as they impinge on safety matters;
- (iv) attend the event itself to evaluate the efficiency of structural and safety arrangements;
- (v) pay particular attention to the pit area immediately in front of the stage;
- (vi) monitor first-aid and rescue tactics for distressed patrons;
- (vii) take any necessary action to alleviate any perceived risks; and
- (viii) recommend emergency procedures to be initiated.

It is very important to evaluate the effectiveness of the safety arrangements for the event, particularly at the front of stage zone. The Event Safety Officer must assert her/his authority in this area. By being central to all the pre-event arrangements and maintaining an active presence at the site during the build-up to the event and on the day of the event, s/he can ensure that arrangements are adhered to and that public safety has a high profile in the eyes of the Promoter.¹

- 4.4 If the event is taking place in a recognised sports ground the Event Safety Officer should liaise with the Ground Safety Officer (as appointed by Ground Management).
- 4.5 Effective site management is an essential element in achieving safety. The Event Safety Officer should constantly seek to improve standards. S/he should have a direct reporting responsibility to the Promoter and the Event Controller.

Stewarding Arrangements

- 4.6 A Chief Steward reporting to the Event Controller should be appointed to supervise the stewarding arrangements. To facilitate such arrangements the venue should be divided into different zones. The key to good stewarding is the appointment of a Supervisory Steward for each zone. The different zones with the names of the Supervisory Stewards should be shown on a map. (See Paragraph 13.3).
- 4.7 Stewards under the control of a Supervisory Steward should be posted in teams of up to 10 depending on the circumstances concerned so that they can act as a team under control from a central point. They should have effective communication with the Central Control Room and have loud-hailers for use in an emergency. Every steward and Supervisory Steward should have a well defined role with a clear understanding of her/his responsibilities and reporting function within the management structure. This should be set out in writing supported by a chart indicating direct responsibilities and reporting arrangements which should be available to all involved in organising the event. (See Chapter 13).
- 4.8 If professional security firms are employed they must work under the control of the Chief Steward. Their role must be clearly defined within the overall stewarding/ management structure.
- 4.9 Recommendations contained in the Code of Practice for Safety at Sports Grounds² relating to Ground Regulations (for events held in sports grounds) and to fire safety also apply to pop concerts held in open sites. Relevant provisions of the Code of Practice for the Management of Fire Safety in Places of Assembly,³ and of the Code of Practice for Fire Safety of Furnishings and Fittings in Places of Assembly,⁴ will also apply.

Central Control Room

- 4.10 A Central Control Room should be provided, from which the communication systems should operate, commanding direct views of the site, supported by closed circuit television. It should be spacious, sound-proofed and properly equipped. The stage, all areas of spectator viewing, circulation areas as well as entry and exit areas and approaches to the site should be included in the view. Closed circuit television cameras should have a recording facility.
- 4.11 It is desirable that this Central Control Room should be shared with the Gardaí who require similar facilities. If this is not possible separate Control rooms should be provided and should be situated as close as possible to each other and have direct communication between both control points. On open sites suitable provision should be made for temporary facilities to house a Central Control Room.

- 4.12 The Central Control Room should contain the facility to communicate quickly with staff, including stage management, the public and the emergency services. The Event Controller and her/his staff should be responsible for the operation of the communications system. Access to the Central Control Room should be strictly controlled and limited to the staff of the Event Controller and the Senior Garda Officer.
- 4.13 There should be inter-communication between the Central Control Room, the emergency services on site, all turnstiles or banks of turnstiles and all entry and exit gates used by the public. Metering or other systems to record all admissions should be put in place to ensure that ground capacities are not exceeded. Arrangements should be made for the Central Control Room and the Gardaí to be kept informed of the number of spectators being admitted. A suggested Communications Scheme is contained in Appendix B.

Role of Gardaí

- 4.14 The role of the Gardaí is set out in Chapter 3 of the Code of Practice for Safety at Sports Grounds² and subject to modifications, is also appropriate for pop concerts. Gardaí are engaged in policing inside the ground in accordance with prepared plans and arrangements made by the Promoter and they should have access to all parts of the ground if the need arises. The Senior Garda Officer and the Event Controller must maintain close and constant contact with each other at all times. This would provide immediate information of any potential difficulties arising.

Local Authority Involvement

- 4.15 Local Authorities have a role in the following areas in the organisation and planning of Pop Concerts:-
- (i) development control (Planning Acts);
 - (ii) fire (fire-prevention, fire-fighting);
 - (iii) temporary structures;
 - (iv) sanitary provisions;
 - (v) roads;
 - (vi) casual trading areas;
 - (vii) campsites;
 - (viii) water and sewerage; and
 - (ix) litter control outside the venue.

Health Board Involvement

- 4.16 The role of the Health Board is to:-
- (i) maintain normal emergency medical and ambulance cover for the local resident population;
 - (ii) provide medical, ambulance and first-aid cover for all participants;
 - (iii) be prepared to respond to a major accident;
 - (iv) advise on all health matters including food hygiene and to monitor and implement the relevant statutory regulations;
 - (v) provide all health services as outlined in the Major Emergency Plan.

References

1. Shaughnessy, J. Paper presented at Safe – T91, International Conference in Safety and Live Entertainment, London, 1991.
2. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.
3. Code of Practice for the Management of Fire Safety in Places of Assembly, Stationery Office, Dublin, 1991.
4. Code of Practice for Fire Safety of Furnishings and Fittings in Places of Assembly, Stationery Office, Dublin, 1989.

Planning and Other Pre-Concert Arrangements

General

- 5.1 As outdoor concerts attract very large audiences and are held at locations varying from open sites to sports grounds, very careful planning of the event is required. The former requires a complex engineering infrastructure to be imported onto the site, whereas the latter will have much of the necessary provisions already in place. Sports grounds, however, may still require significant temporary alterations to be made in the interest of public safety. The ground in question and ancillary buildings are unlikely to be designed for such events.¹
- 5.2 It is essential that the Local Authority, the Gardaí and the Health Board should receive early notification of events. Experience has shown that the earlier the notification the more effective will be the overall control. Responsibility for such notification rests with the Promoter of the Event.
- 5.3 The duration of the concert should not exceed 11 hours on site, with a maximum of 8 hours music in any day. The finishing time for sites where there is inadequate lighting in the vicinity should be a half-hour before lighting-up time. On other sites, concerts should finish not later than 23.00 hours or, where appropriate, 30 minutes before the extended time specified by the Courts for the closure of licensed premises in the area.

Preliminary Suitability Survey

- 5.4 It will be necessary at an early stage for the Promoter, in consultation with the Local Authority, Gardaí, and the Health Board, to carry out a preliminary suitability survey to see if the venue and its environs have the ability to absorb a large influx of people for a concentrated period. The survey should indicate if the site has suitable infrastructure, i.e., means of escape, entrances, exits, absence of dangerous slopes, adequate natural drainage (to avoid possible flooding), water supply facilities, etc.. In open sites care must also be taken to deal with problems of slippery conditions in bad weather. Temporary roadways may be necessary and the ability of the ground to withstand the heavy loadings for temporary stages and other

structures, particularly in very wet weather, must be taken into account. The survey must also ensure that the site can be made suitably secure with regard to prevention of unauthorised entry. The surrounding areas should have sufficient facilities with regard to toilets, refreshments and other requirements to cater for a large crowd which may be in the area for a number of days.

- 5.5 In assessing the suitability of the site the level of disruption which populated centres close to the site of outdoor concerts experience must be taken into consideration. While individuals have the right to entertainment, those providing the entertainment have an obligation to protect public safety and reduce nuisance in the surrounding area to a minimum. Any views or concerns expressed by the local residents should be taken into account in the planning of the event.
- 5.6 The assessment of the suitability of the site must include consideration as to whether satisfactory arrangements can be made for emergency vehicles.
- 5.7 The results of the suitability survey should be presented at the preliminary planning meeting.

Preliminary Planning Meetings

- 5.8 Preliminary planning meetings are a critical part of the process for securing public safety at these events and for determining whether the site is suitable or not. It is advisable for the Promoter to arrange these meetings as early as possible and not later than 6 months before an event being held at a location which has not been successfully used for similar events previously. Where events are being held at an established venue, this meeting may be held 3 months before the event. The Local Authority, the Gardaí, the Health Board, the Event Controller or her/his deputy, the Event Safety Officer, the Transport Authorities, the relevant Voluntary Aid Organisations and the Civil Defence, where appropriate, should be party to this meeting. Minutes of all preliminary planning meetings should be prepared by the Promoter and should be circulated promptly to all parties involved.
- 5.9 A properly dimensioned general arrangement plan showing the approximate position of the stage, the front-of-stage barriers, the mixing tower and the standing/seating accommodation with the sterile areas clearly shown should be available at the preliminary planning meeting. Final proposals should be submitted with the Statement of Safety Procedures outlined in Paragraph 5.14.
- 5.10 The Event Controller should indicate at the meeting the date of the event, name of artist(s), expected attendance, age range, level of excitement anticipated, past experience with and knowledge of same artist(s), ticketing arrangements, V.I.P.s expected, and other relevant information.

Planning and Other Pre-Concert Arrangements

- 5.11 The Promoter should send a copy of the relevant sections of this Code of Practice to the Artists' Management to ensure their compliance with its requirements.
- 5.12 Assessing the risk of crushing at front-of-stage, where crowd densities can be very high, is one of the most crucial areas of concern. Fortunately, there have been very few serious accidents at pop concerts but the potential exists for such an occurrence. If adequate structural provision is not in place and if management is not alert to the dangers, that potential can become a reality. This must form a critical part of planning for the concert.

Event Planning Meeting

- 5.13 When a concert is being held at an established venue an Event Planning Meeting with the same participants who attended the Preliminary Planning meetings (See Paragraph 5.8) should be held at least two months in advance of the event. In the case of a new venue this meeting should be held five months in advance of the event. At this meeting the adequacy of the infrastructure can be clarified. Broad agreement should be reached in relation to:-
- (i) estimated attendance;
 - (ii) public transport facilities;
 - (iii) car parking and access for emergency vehicles;
 - (iv) provision of refreshments;
 - (v) the collection and disposal of refuse;
 - (vi) sanitary accommodation and water supply;
 - (vii) first-aid, ambulances and the need to maintain emergency health services in the area;
 - (viii) fire precautions and fire safety measures, including means of escape and exit routes;
 - (ix) the possibility of a clash with any other major event attracting a crowd on the day scheduled for the concert;
 - (x) the duration of the concert;
 - (xi) arrangements for the appraisal of any special effects prior to or during the performance;
 - (xii) the use of appliances requiring cylinders or containers of flammable gas under pressure;
 - (xiii) access and other facilities for disabled people;
 - (xiv) proposed emergency evacuation procedures (Appendix A – Site Emergency Plan);
 - (xv) procedure to prevent drug abuse;

- (xvi) protection of the local population from nuisance occasioned by the concert;
- (xvii) maximum sound levels and monitoring arrangements;
- (xviii) the Promoter's arrangements for cleaning and clearing up of surrounding areas;
- (xix) the provision of extra telephone lines, if required – Telecom Eireann should be invited to the meeting, if necessary;
- (xx) provision of a water rescue unit by the Promoter, should the venue be adjacent to open water;
- (xxi) contingency plans for adverse weather conditions; and
- (xxii) Public Liability Insurance.

Statement of Safety Procedures

5.14 Following the event planning meeting and not less than 1 month before the event the Promoter should submit a Statement of Safety Procedures in writing to the Local Authority, Gardaí, and Health Board. The Statement should incorporate:-

- (i) the names of the Event Controller, the Event Safety Officer and their deputies;
- (ii) drawings to an appropriate scale including:-
 - (a) Site Layout Plan showing location of stage, front-of-stage barriers and all other temporary structures including trading areas e.g., (food outlet points), first-aid points, fire-fighting equipment, bus/car parking, sanitary accommodation, refuse skips, crowd control barriers and proposed location of ambulance vehicles, medical centre, ambulance control and parking, tents and marquees,
 - (b) Viewing Accommodation Plan showing pitch, terraces and grandstands indicating areas sterilized because adequate views of the stage are not available and also information appropriate to open sites,
 - (c) disabled patrons viewing areas,
 - (d) assessment of safe holding capacity of concert site,
 - (e) proposed means of ingress and egress to cater for (d) above,
 - (f) water supplies, including drinking points, fire hydrants, and other fire-fighting facilities,
 - (g) central control room position,
 - (h) designation of routes for emergency vehicles,
 - (i) traffic and transport arrangements,

Planning and Other Pre-Concert Arrangements

- (j) lighting facilities on site and site approaches, and
 - (k) sound monitoring provisions.
- 5.15 The Promoter should undertake to ensure that:
- (i) the design and construction of the stage and other structures on site will be carried out under the supervision of a suitably experienced chartered engineer;
 - (ii) all temporary structures are completed at least 24 hours before the public is admitted to the site;
 - (iii) the engineer will certify that the works have been designed and carried out in accordance with the relevant standards; and
 - (iv) the certificate will be submitted to the Local Authority 12 hours before the public is admitted to the site.
- 5.16 The Promoter should undertake to advise Artists' Management of these requirements and ensure that the production arrangements will comply with all requirements of the Statement of Safety Procedures.
- 5.17 Details of stage structures, electrical requirements, special effects and other site construction details as outlined in Paragraphs 5.18 – 5.21 should also be included in the Statement of Safety Procedures.

Stage Structure and Other Site Construction Details

- 5.18 Site construction details and loadings, with supporting calculations and, where appropriate, certificates from a suitably experienced chartered engineer should be submitted to the Local Authority and such details should relate to the following:-
- (i) general arrangement drawings of the stage structure, front-of-stage and other barriers and other temporary structures such as the mixer tower, video screen support, lighting tower and tents and marquees; structural member sizes to be shown on the drawings;
 - (ii) calculations and certificates for all critical cases of dead, imposed (including dynamic) and wind loadings as required by the appropriate Irish, British or European Standards;
 - (iii) details of the scaffold system to be used and the manufacturers' catalogue;
 - (iv) details of the following structural members with safe working loads:
 - (a) standards, including special high strength standards if any, and the means of identification on site,
 - (b) adjustable feet and base plates,

- (c) adjustable heads,
 - (d) trussed beams,
 - (e) bracing,
 - (f) ledgers, and
 - (g) all types of connections to be used including wedges, cup locks, standard clips, swivel clips, couplers, sleeves and height adjustment;
 - (v) non-standard items such as aluminium beams, connections and step units;
 - (vi) cladding of Stage Towers and Mixer Tower;
 - (vii) bases to the feet of standards (which should be minimum 0.1 m²) and tower bases (which should be steel grillages or precast concrete slabs);
 - (viii) details of the stage to include:
 - (a) decking construction,
 - (b) any special point loads,
 - (c) public address equipment, and
 - (d) revolving or moving suspended stage; and
 - (ix) details of the roof to the stage to include:
 - (a) distribution layout of lighting and all suspended loads,
 - (b) if the roof is supported on winches, location of the lifting and anchorage points,
 - (c) method of disposal of rainwater,
 - (d) measures to be taken if the windspeed exceeds the design speed, and
 - (e) method of measuring the wind speed.
- 5.19 If these details are not available well in advance of the concert, the location of the various elements, and, in particular, the details of the stage and front-of-stage barriers, cannot be assessed to ensure that proper safety arrangements can be put in place.

Electrical Requirements

- 5.20 Details of electrical requirements should include plans, with cabling layout, and specifications for the electrical installation in accordance with the guidance contained in Chapter 21.

Completion certificates as prescribed in the E.T.C.I.'s National Rules For Electrical Installation² shall be issued for both temporary and permanent work carried out.

Special Effects

- 5.21 Details of special effects should include plans, specifications and, where necessary, relevant certificates of suitability for the following:-
- (i) special lighting including strobe, lasers and stage lighting;
 - (ii) pyrotechnics and bomb tanks;
 - (iii) smoke machines, real flame, confetti cannons and dry ice machines; and
 - (iv) very low frequency public address equipment.

The use of any special effects which could obscure exit routes or cause confusion must not be allowed.

Pre-Production Meeting

- 5.22 A pre-production meeting involving the Local Authority, Gardai, and Health Board should be held at least four weeks prior to the event, where the Promoter, technical heads of sound, lighting, staging and electrical installation (or their representatives) are present. Problems arising from the submission of plans, calculations and specifications as outlined at Paragraphs 5.18 – 5.21 can be resolved at this meeting. Where necessary, samples of materials should be available for assessment. There should be a programme of pre-event inspections established at suitable times during the build-up to the event.
- 5.23 Regular meetings should continue to take place between the Promoter, Local Authority, Gardai, Health Board, relevant Voluntary Aid Organisations and Transport and Telecommunication Authorities prior to the event.

Inspection During Performance

- 5.24 It is recommended that the Local Authority and the Health Board, apart from being present at pre-event meetings, should carry out a "during performance" inspection at the Concert. Promoters should facilitate these inspections.

Post-Event Meeting

- 5.25 A post-event meeting attended by the Promoter, Ground Management, the Event Controller, the Event Safety Officer and all those involved in the pre-event meetings should be held. The purpose of the meeting is to review the operation of the plan and to formulate any changes considered necessary from experience of the event. Minutes of this meeting should be prepared and issued promptly to all participants by the Promoter.

Guidance Documents

5.26 The Code of Practice for Safety at Sports Grounds³ and the other documents listed in the Reference hereunder can also be used for guidance.⁴⁻⁷

The Guide to Health, Safety and Welfare at Pop Concerts and Similar Events.⁸ is a useful guidance document.

References

1. Shaughnessy, J., Paper presented at Safe-T91, International Conference in Safety and Live Entertainment, London, 1991.
2. National Rules for Electrical Installations, Electro-Technical Council of Ireland, Dublin, 1988.
3. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.
4. Code of Practice for the Management of Fire Safety in Places of Assembly, Stationery Office, Dublin, 1992.
5. Model Technical Regulations for Places of Public Entertainment, London District Surveyors Association Publications, London, 1991.
6. Model Rules of Management for Places of Public Entertainment, London District Surveyors Association Publications, London, 1989.
7. BS 5588: Fire precautions in the design, construction and use of buildings, Part 6: 1991: Code of Practice for places of assembly, British Standards Institution, London.
8. Guide to Health, Safety and Welfare at Pop Concerts and Similar Events, HMSO, London, 1993.

The Stage

General

- 6.1 The stage should be of substantial construction with its floor set as high as possible but not less than 3m above ground. The stage and other temporary structures such as camera and light stands should be designed for dead, imposed and wind loadings to BS 6399¹. The steelwork should comply with BS 5950.² The cladding materials should comply with BS 476 Parts 6 and 7³ and, where appropriate, with the Code of Practice for Fire Safety of Furnishings and Fittings in Places of Assembly.⁴ The stage should have a minimum of two exits, situated remote from each other and should have access remote from the audience. The exits should be kept clear of obstruction by equipment and cables at all times. Storage of combustible materials should not be permitted under, behind or on the stage. Side stages or "screamers" which allow the performers to move laterally on each side of the main stage should be provided as this will reduce the tendency of the crowd to converge towards the centre. A "thrust" or projection of the stage into the audience is not recommended as this leads to aggravated crowd excitement and the formation of concave pockets from which the crowd cannot escape. Front-of-stage should be at least 2.5 metres forward of P.A. towers. When considering material for the construction of the stage it is suggested that timber or plywood thicker than 25mm or 19mm respectively would be suitable. Further guidance can be obtained in the publication "Temporary Demountable Structures: Guidance on Procurement, Design and Use".⁵
- 6.2 The stage should also be designed to provide a safe working area for performers and crew members.
- 6.3 The area immediately in front of the stage is of prime importance. This is where crowd density is at a maximum and where the potential for accidents and serious injury is ever present.

The general principle should be to achieve the widest possible sightlines while maintaining sterile areas at each end of the front-of-stage barrier to ensure that the exits are kept clear. There should be exits at either side of stage to ensure adequate provision to facilitate ease of evacuation for distressed persons.

Video Screens

- 6.4 Large video screens (e.g., 'starscreens') which relay the performance can reduce the tendency of the crowd to push towards the front. Screens can also be positioned in other locations to divert some of the audience away from the stage. These screens, which should be visible in daylight, can be used to provide information, urgent messages and entertainment before the concert and during breaks. Artists should be encouraged to use such screens.

Structural Considerations

- 6.5 Guidance on structural and other considerations in relation to temporary stands and other temporary structures is contained in Chapter 14 of the Code of Practice for Safety in Sports Grounds.⁶ The procedures outlined therein in relation to structural design, siting, erection, management during use and dismantling should also be applied to the stage, mixing towers and other ancillary structures.

References

1. BS 6399: Loading for buildings: Part 1: 1984 Code of Practice for dead and imposed loads, Part 2: 1995: Code of Practice for wind loads, Part 3: 1988: Code of Practice for imposed roof loads, British Standards Institution, London.
2. BS 5950: Structural use of steelwork in building, Part 1: 1990, Code of Practice for design in simple and continuous construction: hot rolled sections, British Standards Institution, London.
3. BS 476: Fire tests on building materials and structures, Part 6: 1989: Method of test for fire propagation for products; Part 7: 1987: Method for classification of the surface spread of flame of products, British Standards Institution, London.
4. Code of Practice for Fire Safety of Furnishings and Fittings in Places of Assembly, Stationery Office, Dublin, 1989.
5. Temporary Demountable Structures: Guidance on Procurement, Design and Use, Institution of Structural Engineers, London, 1995.
6. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.

Safe Holding Capacity

- 7.1 The maximum safe holding capacity should be determined for each event on the basis of the nett area available for viewing and the means of egress provided from each area.

The safe holding capacity will be the least of the following capacities:-

- (a) entry capacity;
- (b) holding capacity;
- (c) exit capacity; and
- (d) emergency exit capacity.

The method of calculating these capacities is discussed in the following paragraphs.

- 7.2 Entry capacity for enclosed venues will be a function of the number of turnstiles available, the rate of entry and the period allowed for entry. Guidance is given in Chapter 8 of the Code of Practice for Safety at Sports Grounds.¹ For open sites, these principles will also apply and a careful assessment will have to be made of the rate at which steward-controlled gateways can admit patrons, within a notional period of two hours.
- 7.3 Where there is free movement between stands/terraces and the pitch it is very important to ensure that the points of entry/exit are of adequate width and evenly distributed. They should be located so that in an emergency situation they can be used in conjunction with exits from the pitch to effect the safe evacuation of all persons from the pitch.
- 7.4 In a stadium where sections of the stands/terracing will not be in use because of the position of the stage or for other reasons, appropriate reductions must be made to the holding capacity. In all cases the calculation of the capacity of the viewing area should take into account only those parts of the venue from which the stage can be clearly and easily seen, excluding gangways, stairways and landings (i.e. the available viewing area for calculation purposes).

- 7.5 Where concerts are held on open sites, the ground should be reasonably level for a distance of 25 metres immediately in front of the barriers. It is accepted, however, that slopes on open sites remote from the barrier can create a pleasant, natural amphitheatre effect.

The desirable maximum gradient for such viewing slopes is 1 in 6 (i.e., 9.5 degrees). In areas of the site to the rear of the mixer tower and remote from the stage, steeper slopes up to 1 in 4 (i.e., 14 degrees) may be acceptable, depending on circumstances. Excessively sloped areas should not be included in capacity calculations.

- 7.6 Occupant densities will vary according to the type of area and distance from the stage. The highest occupant densities will occur in the areas closest to the stage. It is essential that the means of egress provided from the pitch in these areas should be adequate for the increased density. This may mean increasing the number of exits close to the stage.

- 7.7 For holding capacity calculation purposes the following factors should be used:-

- (i) for stands, terraces and viewing slopes the safety parameters in relation to underfoot conditions, crush barriers, location of exits, etc., set out in the Code of Practice for Safety at Sports Grounds should be adopted;
- (ii) subject to the deduction of areas which will be sterilized due to the position of the stage, obstructions, sightlines, etc. the holding capacity should be calculated on the basis of:-
 - (a) the number of seats where seating accommodation is provided,
 - (b) one person for each 460mm length of seating where bench seating is provided,
 - (c) 0.5 m²/person on stepped terracing,
 - (d) 0.75 m²/person on an acceptable viewing slope, with appropriate crush barriers and guarding, and
 - (e) 1.0m²/person on an acceptable viewing slope without crush barriers and guarding;
- (iii) in pitches and open areas, subject to the deduction of the area taken up by the stage and other structures, and the deduction of areas sterilized by viewing obstructions (including the mixer tower), sightlines, etc., the holding capacity should be calculated on the basis of:-
 - (a) 0.5 m²/person for the nett area available where there is only one front- of-stage barrier, and

Safe Holding Capacity

- (b) where a multiple barrier system is used the holding capacity of the areas contained within the barriers should be taken as 0.3 m²/person; outside of the barrier areas a figure of 0.5 m²/person over the nett remaining area should be used.
- 7.8 On the basis of the figures calculated for the different areas separate means of escape must be provided to ensure that all persons in those areas can be evacuated into free flowing exit systems leading to a place of safety in not more than eight minutes.
- 7.9 If the available exit systems are not sufficient to deal with the crowd number calculated for the holding capacity, the safe holding capacity must be reduced accordingly.
- 7.10 Local circumstances may dictate that the evacuation time of eight minutes be considerably reduced, e.g., the construction of a stand or terrace may not only affect allowable egress time from the structure itself but also from the pitch area. Spectator accommodation which has, for any reason the potential for rapid fire spread should be assessed on an emergency evacuation of not more than 2½ minutes.
- 7.11 Admission should be by ticket only and the number of tickets sold plus complimentary tickets should not exceed the permitted safe holding capacity. A certified manifest of the tickets printed should be supplied to the Local Authority and Gardai before the event.
- 7.12 It is the responsibility of the Promoter to set maximum capacities for each sector of the ground, in accordance with the recommended guidelines in consultation with the Local Authority and Gardai. It is essential to have thoroughly secure systems of ticket production, distribution and admission to the grounds in place in order to prevent any abuses leading to overcrowding.
- The control systems should be available to the Local Authority and Gardai for inspection before and during the event, as requested. This section should be read in conjunction with Chapter 8 of the Code of Practice for Safety at Sports Grounds especially with regard to forged tickets and entry arrangements and Chapter 11 of this Code also with regard to entry to venue.
- 7.13 The system of admission to the grounds should indicate readily to the Gardai, Event Controller and Event Safety Officer what the level of occupancy is at any given time. Once the agreed capacity is reached the gates should be closed even if it means that genuine ticket holders are refused admission.

The withholding of a certain amount of tickets to deal with this problem should be considered. It is of vital importance from the point of view of public safety that safe holding capacities should not be exceeded.

- 7.14 When any sector of the venue approaches safe holding capacity, systems should be in place, operated by stewards, to prevent further entry until accommodation in that sector becomes available. This situation can arise even if the principle of general access applies to most of the venue. Stewards, under direction from the Event Controller, should then direct patrons to other parts of the venue where spare capacity is available.

Reference

1. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.

Front-of-Stage Barrier/s

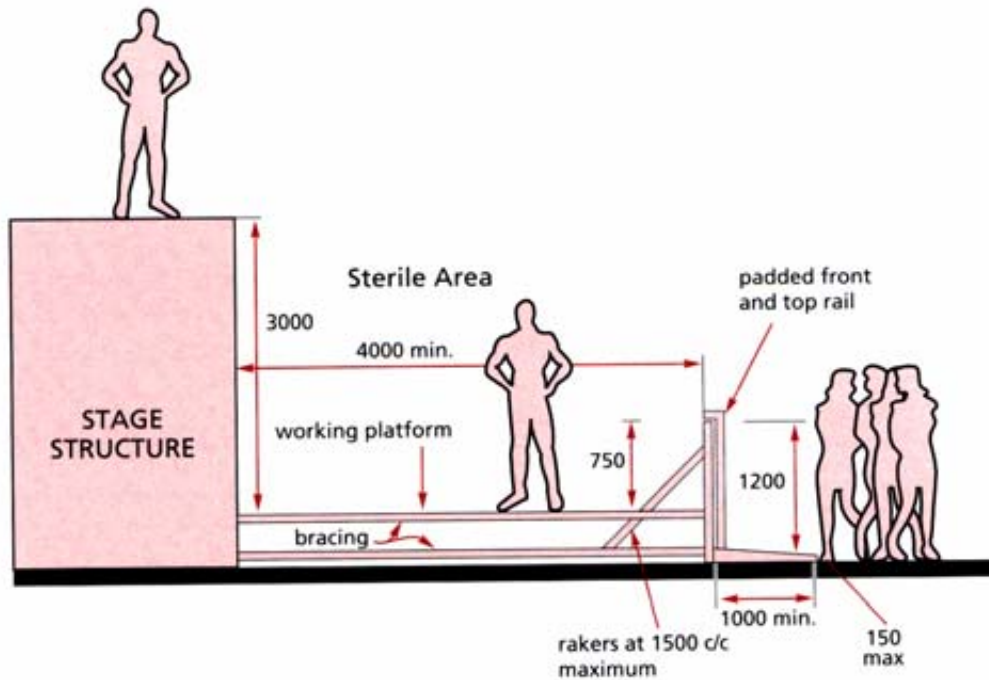
General

- 8.1 A barrier must be provided in front of the audience to create a sterile zone between the audience and the stage. Care should be taken when designing this barrier to ensure that it is both an adequate element in itself, properly founded and does not cause injury resulting from excess pressure on individuals against the barrier. Padding is required to prevent this. The barrier should be in the form of an arc or curve with areas for overspill at each end. Barriers should always be placed on level ground. Detailed guidance is given in the publication "Temporary Demountable Structures: Guidance on Procurement, Design and Use"¹.
- 8.2 There are clear relationships between stage heights, side stage positions, barrier position, fence heights and pressure relief escape routes. These relationships form a matrix as to how the crowd density and shape develops. Therefore, the layout and arrangement of the front-of-stage barrier cannot be finalised without regard to factors including the stage, position of gates, escape routes, stewarding arrangements, and many other connected factors.²
- 8.3 The barrier design is critical to public safety. A front-of-stage barrier not only protects the artists but also serves as a means of relieving crowd pressure and allowing distressed or injured people access to first-aid. The barrier must be designed so that these purposes can be met efficiently. It must be at the right height for the audience and must have a smooth unobstructed raised platform to facilitate crowd supervision by the stewards working behind the barriers. Sight lines, barrier loading, barrier shape and access to first-aid and escape routes are all important.³
- 8.4 The front-of-stage barrier (See Fig. A) should be constructed with a solid front, be not less than 1.2m high (over a tread plate) and be designed together with the framing and connections for a pressure of 5 kN/m run, applied at height of 1.2m.

The top of the barrier and the front should be adequately padded and the tread plate in front should be a maximum of 150mm high, a minimum of 1m deep and sloping outwards. The weight of people on this treadplate may be used to counterbalance the horizontal

pressure. The barrier shall have a platform behind, 450mm high, for the operation of the stewards between it and the stage and can incorporate struts from the stage to the barrier.

Figure A: Detail of front of stage



- 8.5 The barrier should form an integral part of the stage structure. Alternatively an independent demountable/component type barrier which can be shown to have adequate stability and capacity to support a minimum loading of 5 kN/m applied at a height of 1.2m, may be used.
- 8.6 The barrier should not be less than 4m from the stage at any point and should be in the shape of an arc, the ends of which curve away from the audience, so that any crowd pressure will be sideways towards the ends of the barrier where suitable relief outlets should be provided. At a certain point the 1.2m stage barrier should be raised to at least 2.4m forming a sightline obstruction at the end of the side stages. The location of this feature regulates the width of the audience at the front and should be as wide as possible, to reduce crowd density, consistent with maintaining a sterile area at both sides of the stage for exits which should be kept clear for use in an emergency.
- 8.7 The front-of-stage barrier should be designed to withstand a pressure of 5kN/m at a height of 1.2m. This loading requirement is to prevent

structural failure of the barrier and is not necessarily a pressure which can be tolerated by the human body without injury. Experience has shown that women have a lower tolerance to crushing than men and this should be taken into account especially where attendance of young females is expected.

- 8.8 Barrier arrangements should be agreed at the planning meetings and shown on the Site Layout Plan submitted as part of the Statement of Safety Procedures (See Paragraph 5.14). In no circumstances should these arrangements be changed without the agreement of the Event Safety Officer, in consultation with the Local Authority and Gardai. The Event Safety Officer should ensure compliance with this requirement.

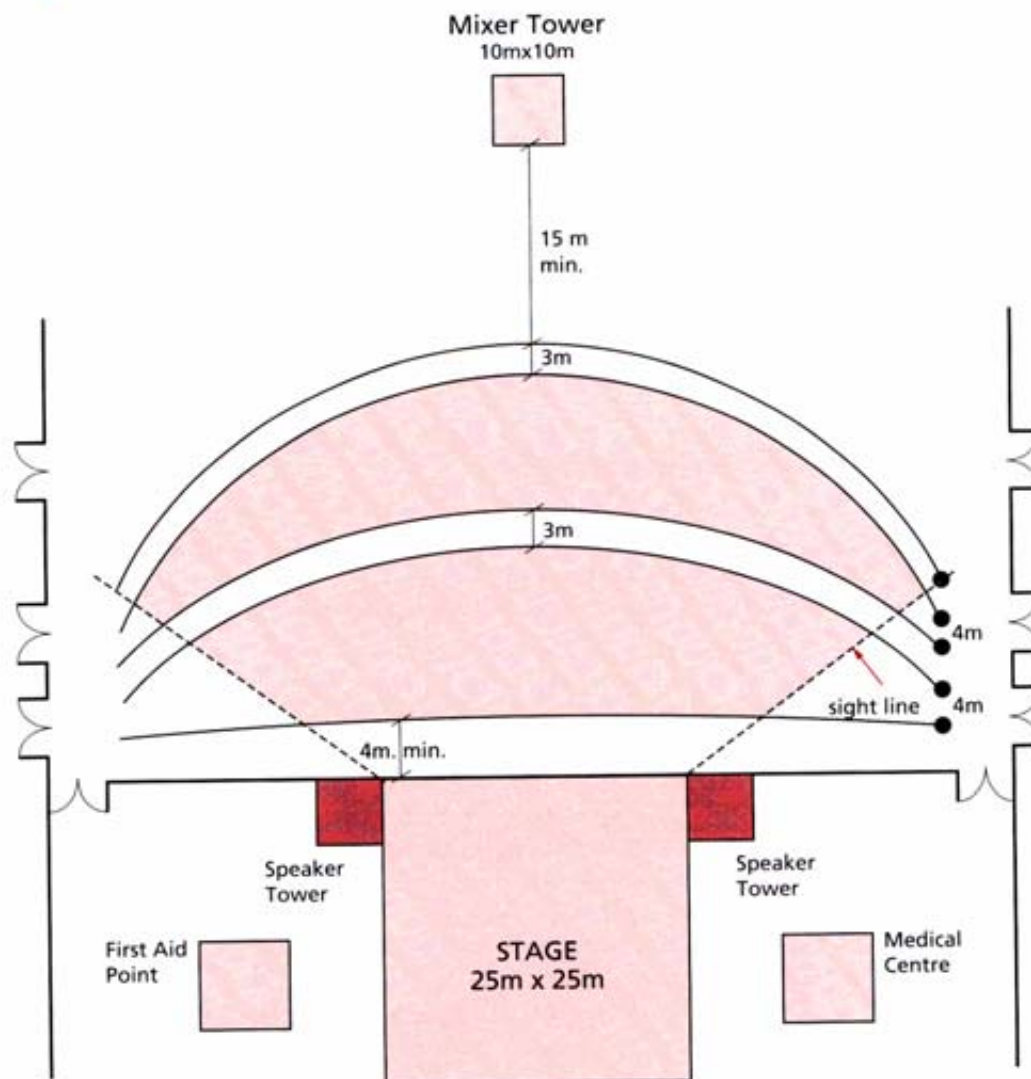
Multiple Barrier Arrangements

- 8.9 Crowd density in the front-of-stage area is frequently a cause for major concern. Crowd behaviour, in the form of surging and crowd waves, can also get out of control and pose a serious risk to patrons.

The depth of the zone of maximum crowd pressure, measured from the front-of-stage barrier, can be such as to create severe difficulties for stewarding/first-aid access into the crowd from the front-of-stage sterile zone. These difficulties can be particularly acute where there is a young audience at a high-profile single-artist event. In such circumstances consideration should be given for the use of a multiple-barrier system instead of a single front-of-stage barrier. The use of multiple barrier arrangements may also be warranted at other events where the severe difficulties referred to above are anticipated. As indicated at Paragraph 8.1 barriers should always be placed on level ground, otherwise the pressure indicated at Paragraph 8.7 could be exceeded.

- 8.10 The overall design and planning for such a system requires a co-ordinated multi-disciplinary approach in order to achieve an integrated result. Great attention to detail is required for barrier layout, provision of adequate means of escape, barrier design and construction, crowd management and stewarding. Failure to achieve and maintain the requisite standard in any one of these areas may lead to dangerous situations.
- 8.11 Multiple-barriers should be laid out in a convex curve into the arena like the front-of-stage barrier, with a sterile zone/corridor provided behind each barrier. It may be advantageous to curve the ends of the barriers towards the stage, thus providing greater depth in the centre, and more readily controllable openings at the sides, (Fig. B). The width of the openings should be related to the size of the crowd within the barriers, in order to provide for evacuation from the total area within 3 minutes. It is desirable to have a minimum distance of 15 metres between the last barrier and the mixer tower.

Figure B: Multiple Barrier Layout



- 8.12 It is not considered desirable that gates should be provided at the sides, as this could create a dangerous penning situation. By using good sightline management, the ingress/egress points will be kept relatively free of patrons and sufficient extra stewards should be provided to control access at these points.
- 8.13 The location of a stage at the goal-mouth end of some sports grounds may not be suitable because of the physical restraints inherent in this location. These factors include the width of the stage, inadequate egress from the pitch at the sides and inadequate space at ends of barriers. If the standards outlined earlier in the Chapter cannot be achieved then the stage should not be erected in this location. In such circumstances it may be necessary to locate the stage along one of the touchline sides, thus allowing more flexibility for access/egress at the edges of the crowd.

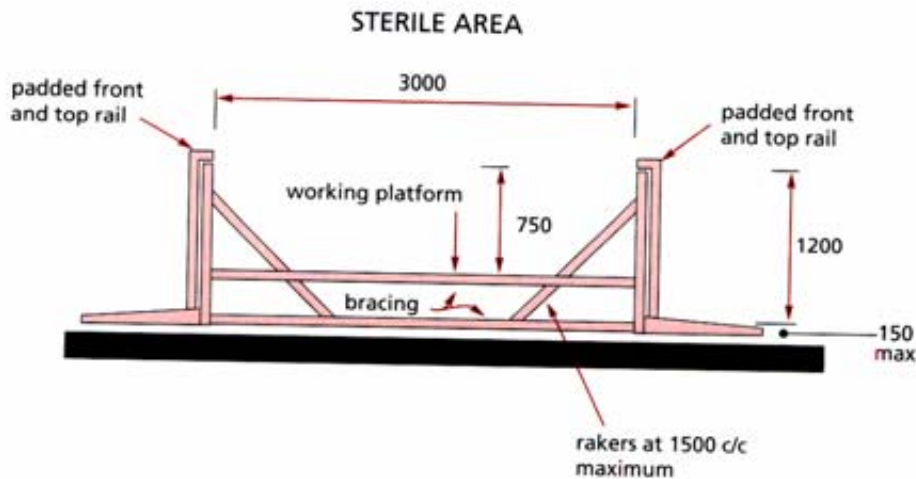
Front-of-Stage Barriers

- 8.14 The design of such multiple barriers is likely to be based on a demountable system. Barriers should be capable of resisting a load of 5kN/m, on both sides of the sterile corridor, and careful consideration must be given to joint details.

While demountable barriers have obvious advantages for flexibility of layout, etc., the Promoter should consider the feasibility of providing permanent anchorage points beneath surface level or the use of augured anchors of adequate strength which could be utilised for occasional barrier installation.

- 8.15 Both of the barriers which define the sterile corridor should be capable of resisting the design load; it is not acceptable to use a designed barrier on the outer face of the corridor and a light, police-type barrier on the inner face. Alternatively two independent barriers each of adequate stability and a capacity to support a loading of 5kN/m may be used. It is recommended that the sterile corridor be no narrower than 3m and that both barriers be connected together at ground level, thus increasing the robustness of the barrier system while also providing a low platform from which stewards can operate. See Fig. C.

Figure C: Detail of multiple barrier and sterile area



- 8.16 Crowd management within a barrier zone requires a high standard of control. Subject to the evacuation requirements in 8.11 above, it may be possible to allow for a higher density within the zone, of up to 0.3m² per person; such a higher density may have advantages in preventing crowd waves and surges. When the capacity of the barrier zone has been determined strict precautions must be taken to prevent overcrowding. Colour coded wristlets issued at the entry point on a first-come, first-served basis are recommended as a workable control mechanism, with subsequent strict control on exit/re-entry. Only

sufficient wristlets corresponding with the agreed capacity should be issued.

- 8.17 Multiple-barrier systems require a higher level of stewarding than normally required. In addition to the extra stewards required for the ingress/egress points, the sterile corridor zones must also be stewarded, to the same level as the sterile front-of-stage zone. This stewarding has a three-fold purpose:
- (i) to prevent unauthorised entry over the barrier;
 - (ii) to provide immediate access to deal with problems in the crowd as they arise; and
 - (iii) to provide for immediate first-aid access; first-aid personnel will also be required in each sterile corridor zone.

Other Barrier Arrangements

- 8.18 Another type of barrier formation involves a spur type barrier from the centre line of the stage. While this system may prevent lateral movement or swaying in the crowd it could also lead to the creation of pockets where a build-up of crowd pressure could occur on those at the front. This would prevent distressed patrons being rescued over the barrier with no access from behind. This barrier formation is not recommended.
- 8.19 A spur barrier system projecting from the mixer tower towards the stage area does not have this effect but may prevent lateral movements. Where this system is used, provision must be made for an adequate system of access and egress for distressed patrons, the emergency services and barrier stewards.
- 8.20 Island-type barrier arrangements have been used elsewhere but exiting arrangements for distressed persons from inside such structures are difficult. Pending further research on this type of barrier their use is not recommended.
- 8.21 Various other crowd control systems, including the use of a cantilever stage system, are being considered in the United States. Pending experience of these new systems it is not possible to give a recommendation regarding their usage.

References

1. Shaughnessy, J., Audience and Crowd Control. In: Thompson, G., Focal guide to safety in live performance, Oxford, 1993.
2. Limbe, R., paper presented at Safe-T91, International Conference in Safety and Live Performance, London, 1991.

Noise

- 9.1 Guidance on sound levels at outdoor concerts is contained in the Guide to Health, Safety and Welfare at Pop Concerts and Similar Events.¹
- 9.2 A major factor associated with pop concerts is the high level of sound emitted during performances or rehearsals. This sound can cause problems for patrons, those working at the concert and people in the surrounding area. It is, therefore, necessary to control this noise level. In considering noise levels regard should be had to the fact that pop concerts in outdoor venues take place at irregular intervals and are unlikely to be held at the same venue more than three times annually. If more frequent concerts take place, different standards may apply.
- 9.3 The duration of the concert must be considered when determining noise levels and noise levels affecting employees, patrons and surrounding areas must be taken into consideration. A specified maximum noise level should be determined at the boundary of the site by the Promoter in agreement with the Health Board.
- 9.4 Suitable noise measuring meters should be provided in positions agreed with the Health Board. The sound level meter should comply with the provisions of BS 5969:1981.² and be available for inspection at all times.
- 9.5 The Environmental Protection Agency Act, 1992,³ contains provisions dealing with controls on noise. Account should be taken of these and of the Environment Protection Act, 1992 (Noise) Regulations, 1994.⁴ Regulations controlling sources of noise and specifying noise limit standards are planned and, when made should also be taken into account.
- 9.6 In the case of employees regard must be taken of the terms of the Safety, Health and Welfare at Work Act, 1989.⁵

It is recommended that a system of rotation of duties should be introduced to protect staff from high noise levels in certain locations.

References

1. Guide to Health, Safety and Welfare at Pop Concerts and Similar Events, HMSO, London, 1993.
2. BS 5969:1981, Specification for sound level meters, British Standards Institution, London.
3. Environmental Protection Agency Act, 1992, Stationery Office, Dublin.
4. Environment Protection Act, 1992 (Noise) Regulations, 1994, Stationery Office, Dublin.
5. Safety, Health and Welfare at Work Act, 1989, and associated Regulations, Stationery Office, Dublin.

Traffic Management

Traffic Management Plan

- 10.1 A Traffic Management Plan should be prepared by the Gardai in consultation with the Promoter, the Local Authority, the Health Board and transport authorities. (Section 91 of the Road Traffic Act, 1961/1968¹ detailed at the end of the Chapter outlines the relevant statutory provision).
- 10.2 The purpose of the Plan is to allow free flow of traffic around the concert site and, if considered necessary, around the town, village or city centre, or part thereof, and to minimise the intrusion on local residents.
- 10.3 The intention should be to minimise the use of cars in the vicinity of the event. Publicity material should advise against using a car and, if possible, the following alternatives should be put in place:-
- (i) the provision of a feeder bus system from city or town centre locations with a reduced fare which will encourage people, especially younger people, to use public transport; and
 - (ii) the provision of safe parking facilities at the city, town centre or other suitable areas away from the concert site with feeder buses taking people to and from the venue.

Land owners opening temporary car parks should be encouraged to provide toilet facilities and lighting on their property.

- 10.4 The significant elements in traffic management are:-
- (i) diversion of traffic around the concert site and the areas outlined in Paragraph 10.2 above;
 - (ii) special arrangements for routine transport of hazardous substances in these areas;
 - (iii) parking restrictions and designation of tow-away areas;
 - (iv) designation of pedestrian zones;
 - (v) approach routes to official campsites (particularly for events of over 1 day);

- (vi) approach routes for day trippers;
- (vii) approach routes for bus traffic;
- (viii) designation of bus and car parks with suitable lighting, if appropriate;
- (ix) operation of Garda checkpoints on approach routes so as to control approaching traffic, to prevent unauthorised traffic and to prevent unauthorised or illegal traders from entering the cordoned area; and
- (x) designation of routes to hospital(s)/medical centres for emergency vehicles.

A drawing should be prepared to illustrate the Traffic Management Plan. It should be made available to the Promoter, Local Authority, Health Board and all others concerned in the organisation of the event.

Garda Cordon

- 10.5 Garda barriers should be erected along the approach roads and the areas inside the cordon should be pedestrianised.² No vehicles other than emergency vehicles should be allowed past the Garda barriers unless displaying a Garda pass. Local residents, artists, drivers of work and emergency vehicles and appropriate officials of the Local Authority and statutory agencies who may have occasion to pass within the restricted area, should be provided with such passes indicating the registration number of the vehicle.
- 10.6 Diversionary routes should be identified in the Plan. Parking of vehicles should be strictly prohibited along the diversionary route(s). The co-operation of the Automobile Association should be requested with regard to the erection of No Parking signs, Information signs, Tow-Away signs and Diversionary signs showing the exit routes to major towns or other major locations in advance of the event. Any vehicle found parked illegally may be removed, on direction of the Gardaí, to a place designated for that purpose at the event in question. The diversion(s) may also be used by Emergency Vehicles and, therefore, it is of paramount importance that such route(s) be kept clear of all vehicular obstruction at all times.
- 10.7 Adequate parking facilities should be arranged by the Promoter in consultation with the Gardaí for both buses and cars outside the Garda barriers. The Promoter, in consultation with the Gardaí, must make provision for suitable parking of coaches, (preferably off-street), the number of which can exceed one hundred. The location of coaches can have a significant bearing on crowd control, with particular reference to the effect of troublemakers on local residents.

Public Transport

- 10.8 The Plan should include the provision of additional public transport services to facilitate the transport of patrons to and from the venue.
- 10.9 Traffic arrangements should receive widespread publicity in the national and local media so as to ensure that patrons are made aware of the approved routes, parking arrangements and availability of public transport. The broadcast of traffic plan details by "AA Road Watch" or other such programmes on radio and television should be encouraged. It should be the responsibility of the Promoter, following consultation with the Gardaí, Local Authority and Health Board, to publish the agreed plan.
- 10.10 Traffic arrangements should take into account the need of the Local Authority and Health Board to maintain emergency services, both in respect of the event itself and the local resident population.
- 10.11 There should be liaison between Promoters of major events in order to avoid unnecessary duplication. Duplication of events can place intolerable demands on transport systems, Local Authority, Gardaí and Health Board resources. Adequate advance notice should be given to the Transport Authorities.
- 10.12 Traffic arrangements should provide for a satisfactory access and exit system in order to service any emergency situation that may arise at the concert site. Invariably, this will form part of the Site Emergency Plan.

References

1. Road Traffic Act, 1961, as amended by the Road Traffic Act, 1968, Stationery Office, Dublin. (See Note 1 below).

Note 1

The text of Section 91 is as follows:

- (1) For the purpose of preserving order in relation to traffic where there is an event attracting a large assembly of persons or when there is traffic congestion or a fire, flood or similar occurrence, a member of the Garda Síochána in uniform may do all or any of the following things: divert, regulate and control traffic and regulate and control the parking of vehicles.
- (2) The powers conferred by subsection (1) of this section shall, in particular, include power to do all or any of the following things by oral or manual direction or by the use of portable signs of such size, form and colour and having such significance as may be prescribed;
 - (a) prohibit the passage of traffic;
 - (b) indicate the direction in which traffic is to proceed;

- (c) prohibit the parking of vehicles:
 - (d) indicate places for the parking of vehicles or as stands for public vehicles and regulate their use;
 - (e) make any other prohibitions or indications which he considers necessary for preventing obstruction or disorder in traffic.
- (3) A person who contravenes a direction given by a member of the Garda Síochána under this section or who contravenes a prohibition, restriction or requirement indicated by a sign referred to in subsection (2) of this section, shall be guilty of an offence.
- (4) Notwithstanding any other provision of this Act, a person may, for the purposes of this section, act temporarily as a parking attendant subject to his having being authorised so to do by an officer of the Garda Síochána.
2. Criminal Justice (Public Order) Act, 1994, Stationery Office, Dublin.

Entry to Grounds

General Access

- 11.1 General access is the term used to describe the system whereby all patrons pay the same admission price and are allowed to move freely to most parts of ground, e.g., terrace, stands and pitch. Only a small area in the stands is reserved. This has been a very successful formula for rock concerts. Patrons feel comfortable when they are not confined to one area of the ground for a long period.
- 11.2 Care must be taken by the Event Controller to ensure that such access does not result in over-crowding in any part of the ground and that agreed capacity is not exceeded in a particular area such as the pitch. Contingency plans must be in place to prevent patrons attempting to enter already crowded covered accommodation in the event of inclement weather.
- 11.3 Guidance regarding spectators entering the ground is contained in Chapter 8 of the Code of Practice for Safety at Sports Grounds¹ and should be carefully read in conjunction with this Chapter.

Admission

- 11.4 Admission should be by ticket only and the sum of tickets sold and complimentary tickets should not exceed the safe holding capacity calculated in accordance with the provisions of Chapter 7 of this Code. A certified manifest of the tickets printed should be supplied to the Gardaí and Local Authority before the event. The Promoter should ensure that tickets are disposed of according to agreed procedures. In situations where there is a deviation from these procedures the Promoter should inform all concerned, including the Garda authorities.
- 11.5 The system of admission to the grounds should indicate readily to the Local Authority, Gardaí, the Event Controller and Event Safety Officer what the rate of occupancy is at any given time. It is of vital importance from the point of view of public safety that safe holding capacities should not be exceeded. When any sector reaches capacity, systems should be in place to prevent further entry into that area.

This situation can arise even if the principle of general access applies to most of the site and entry controls must be strictly applied.

- 11.6 The danger of forged tickets being used, and of the activities of ticket touts, resulting in serious over-crowding, is considered in Paragraphs 8.14 and 8.15 of the Code of Practice for Safety at Sports Grounds and the recommendations therein should be considered by the Promoter.

Crowd Control

- 11.7 Chapter 14 relating to "Crowd Management" sets out guidelines regarding the control of crowds entering the grounds at the start of the event. Contingency arrangements should be made to admit members of the public to the ground before the agreed opening time should the need arise.
- 11.8 Admission can be staggered by providing a range of supporting activities such as preliminary acts some hours before the main event. This will allow a longer period of entry and avoid congestion at entry points.

Re-Admission

- 11.9 Arrangements should be made by the Promoter to accommodate patrons who wish to leave the venue for a short time, e.g., by the issue of wristlets, if considered necessary following consultation with the Gardaí.
- 11.10 Facilities should be provided to enable people, for whatever reason, to leave the site at any time. For this purpose, a number of reversible turnstiles or, preferably, pass doors/pass gates, so operated as to limit the opening to the passage to one person at a time, should be provided. Reversible turnstiles are not acceptable as a means of escape from a site and should not form any part of, or be installed into, the normal or emergency exit system of the site.

Reference

1. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.

Spectators with Disabilities

General

- 12.1 All premises including open sites used for concerts should be accessible to all disabled persons, including wheelchair users, whether they be members of the public or employees. Guidance regarding requirements for spectators with disabilities is contained in Chapter 5 of the Code of Practice for Safety at Sports Grounds.¹
- 12.2 The underlying philosophy of any layout should be that:-
- (i) elements of any building on the site do not constitute an undue hazard for a disabled person;
 - (ii) disabled persons can independently move into and within any building or site;
 - (iii) disabled persons can use the facilities of any building or site;
 - (iv) suitable sanitary accommodation is available and accessible to disabled persons;
 - (v) where fixed seating is provided suitable accommodation is available for disabled people; and
 - (vi) suitable aids to communication are available for people with an impairment of hearing or sight.
- 12.3 In the interests of the safety of the disabled and evacuation requirements in an emergency, disabled and partially disabled persons in wheelchairs should be admitted only to designated positions. Adequate provision should be made for the accommodation, ingress and egress of disabled persons and the positions arranged for them should be adjacent to toilets and other facilities suitable for their use.
- 12.4 The safety measures set out in the Code of Practice should not be construed in such a way as to place undue restrictions on people with disabilities.
- 12.5 All arrangements should be put in place so as to maximise the independence of people with disabilities, thus reducing dependence on able-bodied people who may not be readily available in an emergency.

People with Impaired Hearing

- 12.6 Although people with impaired hearing may experience difficulty in hearing messages broadcast on a system designed for those with normal hearing (See Chapter 19) a hearing impairment does not mean that in all cases a person is insensitive to sound and that they do not have a sufficiently clear perception of all conventional alarm signals. Where this is not the case it is reasonable to expect spectators who have been alerted to prepare for evacuation to warn those with impaired hearing. Where they exist, electronic boards and television monitors should be used to give information on evacuation.

People with Impaired Vision

- 12.7 Signposting (See Code of Practice for Safety at Sports Grounds¹ especially fire or other safety signs, should be sited so that, as far as possible, they can be easily seen and readily distinguishable by those with impaired vision or colour perception. Reference should be made to National Rehabilitation Board Publication, "Access for the Disabled 1: Minimum Design Criteria".²
- 12.8 Prior to the concert there should be an information announcement (audio and visual, by signposting or video screen) informing the spectators of safety precautions, location of exits, etc., for normal and for emergency evacuation of the stands and grounds.

People with Impaired Mobility

- 12.9 Because there is a tendency for crowds attending pop concerts to rush towards the stage, the areas designated for persons using wheelchairs should be positioned away from such crowd movements.
- 12.10 The accommodation for wheelchair users at a concert normally consists of a raised platform with a good view of the stage; this platform must conform to the criteria set out for temporary platforms, etc., (See Paragraphs 25.1 – 25.3) including the suitability of the ground on which they are placed. Wheelchairs should not be positioned so as to obstruct passageways or exits.
- 12.11 The viewing platform should be positioned so that wheelchair users are integrated with the rest of the crowd.
- 12.12 Every effort should be made to provide for the protection of wheelchair users in inclement weather.

Existing Venues

- 12.13 It is accepted that it may not be possible to apply the Code fully in all existing grounds/stadia, or in open sites. In these circumstances alternative ways of meeting its objectives should be sought. Useful advice can be found in Chapter 2 of the document "Guide to Fire Precautions in Existing Places of Entertainment and like Premises"³ and advice is also available from the National Rehabilitation Board.

References

1. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.
2. Access for the Disabled 1: Minimum Design Criteria, National Rehabilitation Board, Dublin, 1988.
3. Guide to Fire Precautions in Existing Places of Entertainment and Like Premises, HMSO, London, 1990.

Stewarding

General

- 13.1 Chapter 18 and Appendix D of the Code of Practice for Safety at Sports Grounds¹ sets out the duties, training, etc., of stewards at events held in sports grounds and should be read in conjunction with this Chapter. Many of the duties of stewards at pop concerts are the same as those of stewards at sports events but there are important differences. The general access principle means that spectators can move freely throughout most parts of the stadium at pop concerts. Dangers of crushing at front-of-stage, the presence of spectators on the pitch and the length of time spectators are present in the ground are all factors that require the duties of stewards to be adjusted for pop concerts.
- 13.2 The Promoter has the responsibility to maintain good order at the venue and for appointing a staff of competent stewards for this purpose. To this end the Promoter should appoint a Chief Steward who should co-ordinate the responsibilities of all stewards, including stewards from security firms, and should attend all pre-event and post-event meetings. Control of Stewards should be organised from the Central Control Room with an efficient means of communication. The Chief Steward should be directly accountable to and report directly to the Event Controller. There should be direct and efficient communication available to them. Radio/telephone systems should be in use for this purpose.
- 13.3 The grounds should be divided into zones to facilitate organised stewarding. Each zone should be in the charge of a designated Supervisory Steward. If appropriate, zones should be sub-divided into sectors to facilitate more efficient stewarding. This system is to be commended for major events. Gridded maps should be prepared showing the extent of each zone and sector. Maps should be augmented by an organisational chart indicating the reporting functions of every steward. Every steward should have a well defined role with a clear understanding of her/his control and reporting functions within the managerial structure. The Chief Steward and the Event Controller are each required to perform different functions. One person cannot fulfil the duties of both posts.

Age, Fitness and Identification

- 13.4 The stewards should be not less than 18 years of age, be under 55 years of age, be physically fit, be adequately trained and instructed in their duties, and wear distinctive dress such as fluorescent jackets or bright or fluorescent coloured tee-shirts.

Armbands are not a sufficient means of identification. Each tee-shirt or jacket should bear a distinctive identifying number.

- 13.5 A register should be prepared with the name and address of each steward including stewards employed 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 tee-shirt worn by each steward. This register should be made available to the Gardai before the event.

Duties and Responsibilities of Stewards

- 13.6 Each steward should be fully briefed on her/his duties and issued with clear, written instructions. They should be permitted to familiarise themselves beforehand with the particular area of the ground which is relevant to their responsibilities.
- 13.7 There must be a preplanned strategy for dealing with problems. As indicated at Paragraphs 13.2 and 13.3 there must be a structured plan for stewards with reporting arrangements clearly set out and each steward knowing where s/he fits into the overall plan.
- 13.8 Stewards engaged on stewarding at the front-of-stage barriers should receive appropriate training in their duties beforehand. They should be competent in the art of lifting distressed patrons out of the crowd, able to prevent patrons from climbing on to the stage and have a knowledge of rescue tactics, first-aid and crowd control psychology. Additional stewards will be required at the back of stage area.
- 13.9 A maximum period in which stewards should be on continuous duty should be determined. There should be an arrangement in place for catering for the stewards and for arranging their fixed breaks.
- 13.10 While on duty they should not be engaged in other activities which would prevent them from carrying out their functions. They should not leave their posts without the permission of their supervisory steward.
- 13.11 Stewards and other staff should not be stationed for long periods close to the loud speakers without hearing protection.

13.12 Stewards should:-

- (i) be courteous to the general public;
- (ii) be aware of the position of fire-fighting equipment and arrangements for medical facilities, first-aid and ambulances;
- (iii) be familiar with the Site Emergency Plan, their part in its operation and specified duties to be undertaken in an emergency;
- (iv) give immediate access to Gardaí and other emergency services in the event of an emergency and also when requested by the Gardaí;
- (v) be positioned at all exits, entrances and key points where control is most needed, particularly in any control area near the stage and all points of entry to covered accommodation;
- (vi) control and/or direct spectators who are entering or leaving the ground and help achieve an even flow of people to the viewing areas;
- (vii) be competent to recognise crowd densities, signs of crowd distress and crowd dynamics so as to help ensure safe dispersal of spectators on terraces, pitch or viewing slopes and ensure there is no overcrowding in any part of the venue;
- (viii) exercise proper control over the audience: their primary duty is to take care of, assist and not to use excessive force in dealing with any member of the public;
- (ix) ensure that concourses, staircases, passage-ways and exits are kept clear and free from obstruction at all times;
- (x) prevent any standing on seats, climbing on fences and on other structures: if in difficulty they should immediately contact the Supervisory Steward or a Garda;
- (xi) patrol the ground and its surrounds to deal with any emergencies, e.g., raising alarms or tackling early stages of fire;
- (xii) assist Gardaí with crowd control as requested;
- (xiii) on request from the Gardaí, assist at barriers checking tickets and giving information to patrons approaching the venue;
- (xiv) investigate promptly any disturbance or other incident coming to notice;
- (xv) report immediately to her/his Supervisory Steward or Garda, if any fire or other emergency comes to notice;
- (xvi) be capable of recognising potential hazards and suspect packages, reporting such findings to the Supervisory Steward or Garda;

- (xvii) assist in the prevention of breaches of ground regulations as indicated in Appendix E of the Code of Practice for Safety at Sports Grounds; and
- (xviii) report to the Supervisory Steward, if any damage likely to cause injury or danger to persons in attendance comes to notice.

Stewarding Requirements

- 13.13 The number of stewards on duty at a pop concert will depend on the venue, type of artist and the audience. The number of stewards for a particular concert should be fixed, taking all circumstances into account, in consultation with the Gardai. Should the majority of the audience be under sixteen years of age, extra stewards will be required and they should be distributed so as to exert effective control, particularly in front-of-stage area and the front rows of elevated seating accommodation in stands.

A likely requirement at enclosed venues will be one steward for 250 persons in stands and terraces and one steward for 100 persons in open areas. This number should be doubled for audiences under 16 years of age.

- 13.14 Fire Stewards should be appointed to patrol constantly throughout the period of the event. This should be arranged in consultation with the Local Authority. Fire Stewards should receive training in the use of any particular piece of equipment which they are required to use and be familiar with its operation.

The Fire Stewards should ensure that any outbreak of fire is promptly detected and after first raising the alarm, they should immediately assist in evacuating the affected part of the venue, if considered necessary, and take all possible steps to eliminate the hazard safely.

- 13.15 There should be a fixed number of stewards on duty at all times. A reserve team of stewards should be readily available to replace stewards at meal intervals, etc., or if required in any area should the need arise.
- 13.16 Personal radio handsets should be of uniform specification to facilitate compatibility. Each handset should use the same frequency.
- 13.17 If professional firms are used for stewarding they must be subject to the control of the Chief Steward. The firms' Heads of Security should attend all planning and post event meetings.
- 13.18 Supervisory Stewards should be competent and trained in fire control, emergency evacuation and first-aid.

Stewarding

- 13.19 Stewards/security personnel should not consume alcohol at any time during the period of the open-air entertainment.
- 13.20 Stewards should not use dogs for stewarding or other security purposes while the general public are present at the venue.
- 13.21 An adequate number of stewards should be competent and trained in the special needs of disabled people and be capable of rendering assistance to them.

Reference

- 1. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.

Crowd Management

General

- 14.1 Guidance regarding ingress is given in Chapter 8 of the Code of Practice for Safety at Sports Grounds.¹

Access to the Grounds/Site

- 14.2 At outdoor events there should, with the co-operation of the Gardaí, be preliminary searches and ticket checks at the approach roads to the grounds.
- 14.3 A public address system or loudspeaker system should convey instructions to patrons inside and outside the ground. Under no circumstances should money be accepted at the gate. A ticket only situation should apply at a major concert. If tickets must be sold on the day of the concert, booths should be set up outside the Garda cordon for this purpose, so as not to undermine the purpose of the cordon.
- 14.4 Supervisory Stewards should be positioned at each entry point, be in radio contact with Central Control Room and should generally be in a position to observe crowd movements, crowd build-up and pressure points.
- 14.5 It is advisable to ensure line discipline for searches and ticket checks.
- 14.6 A reserve team of stewards and staffing should be provided to deal with emergency situations.
- 14.7 Crowd density should be controlled at a considerable distance from entrances and corrals should be used to break up the crowd so as to avoid pushing, etc.
- 14.8 Tapered columns can be made from barrier formations which are narrow at the start but which get wider close to the entry point. These barriers must be removed before egress commences.

Refusal of Admission

- 14.9 Patrons found in possession of alcohol, cans, bottles, any offensive weapons or drugs should not be admitted to the site or stadium.
- 14.10 Patrons under the influence of drugs or alcohol should not be admitted. The Gardai may require temporary facilities and accommodation for the safe detention of persons arrested at the event. This accommodation should be provided by Ground Management/the Promoter after consultation with the appropriate Garda Officer.

Management of Patrons following Entry to the Ground/Site

- 14.11 It is desirable that conflict of pedestrian flow should be avoided when patrons enter the site or stadium. If there are sufficient entrances it is wise to arrange for entry at the end of the ground remote from the stage. This will facilitate the exiting/evacuation of patrons from the front-of-stage area. In normal circumstances patrons entering the pitch area should not be admitted through the entrances close to the stage area.
- 14.12 When entry to the event commences lines of stewards should be positioned across the pitch to slow down patrons as they run forward towards the stage.
- 14.13 When patrons enter the venue stewards should encourage them to sit on the ground so that there is adequate space for all and there is no immediate pressure on the barriers. It would be helpful, particularly at the beginning of the event, if a Master of Ceremonies (M.C.) or Senior Steward were to give the audience information and ask them to sit. It is important to allow patrons access right up to the front-of-stage barrier as they come in so that no loose space is created in that area as the audience stands up.
- 14.14 At the commencement of the show, the front-of-stage stewards should move to a position on a ramp behind the front-of-stage barriers.
- 14.15 Supervisory Stewards with binoculars should be positioned as observers to monitor crowd behaviour particularly at the barriers or in areas of high crowd density. Such stewards should be in radio contact with Central Control Room so as to report their observations, where appropriate, thus enabling suitable action to be taken.
- 14.16 The practice of "crowd-surfing" by individual patrons should be discouraged and the crowd should be advised that such patrons will be removed from the concert. This practice, whereby young patrons crawl over the heads of the front of stage crowd, is dangerous and can lead to serious injury. The practice of patrons forming "human pyramids" should be similarly discouraged for the same reasons.

Availability of Water

- 14.17 The practice of spraying patrons with water hoses is not recommended as hypothermia could be caused by falling temperature. A continuous supply of water should be handed out in plastic cups. Water should always be available close to the stage for drinking purposes and at other selected areas in the venue.

Video Screen(s) and Pre-Event Entertainment

- 14.18 The provision of video screen(s) at the venue is considered to be particularly advantageous as it enables patrons to see the artists clearly from a distance and helps to keep the crowd good-humoured and to reduce pressure at front-of-stage barriers.
- 14.19 Arrangements should be made by the promoter to ensure continuous entertainment from the time the gates open to the beginning of the first act and at intervals between acts. This may be in the form of film or recorded music. A good M.C. can greatly assist the good humour of the fans while the main artist is not on stage.

Conduct of Performers

- 14.20 During the concert, performers should avoid any action which may over excite the audience or endanger public safety. Performers should also remain within the immediate stage area throughout their performance and should not venture into the "pit" area for any reason whatsoever. Promoters should ensure that the concert starts promptly at the advertised time; this applies particularly to the main act. Lengthy intervals between acts are not recommended.

Missing Persons

- 14.21 Provision should be made for the tracing and identification of missing persons.

Reference

1. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.

Means of Escape and Exit Routes

General

- 15.1 Guidance regarding final egress is contained in Chapter 9 of the Code of Practice for Safety at Sports Grounds.¹

Egress

- 15.2 Gates should be manned at all times by stewards and should be opened before the end of the concert. If the gates are opened too early there is a danger of hawkers moving in and causing an obstruction to patrons leaving the concert. The egress procedures need careful planning and management, as this can be a dangerous time particularly for younger children.
- 15.3 It is the responsibility of the Promoter to comply with the requirements of the Fire Safety in Places of Assembly (Ease of Escape) Regulations, 1985,² while the public are present in the ground. This applies, inter alia, to manning and controlling all means of ingress and egress.
- 15.4 The Promoter should ensure that, while the ground is in actual use as a place of assembly:-
- (i) subject to clause (ii) hereunder, all escape routes are kept unobstructed and immediately available for use;
 - (ii) doors, gates and other like barriers across escape routes are not secured in such a manner that they cannot be easily and immediately opened by persons in the place of assembly;
 - (iii) all chains, padlocks and other removable fastenings for securing doors, gates or other like barriers are removed and kept in a place where they may be readily inspected by an authorised person for the purpose of Section 22 of the Fire Services Act, 1981.³
- [Sub-paragraphs (i), (ii) and (iii) above are extracts from the Fire Safety in Places of Assembly (Ease of Escape) Regulations, 1985].
- 15.5 No exits should be taken out of use without prior consultation with the Local Authority.
- 15.6 No temporary barriers should be placed on or around the pitch, anywhere within the ground or immediately outside the ground

where they could form an obstruction to the means of escape or impede the safe evacuation of the venue.

- 15.7 If the event takes place in a sports ground, sections of the perimeter fence should be removed to ensure as quick as possible an exit from the pitch area or from the terraces and stands to the pitch in an emergency. All gates in the perimeter fence should be manned, locked back in the fully open position or removed.
- 15.8 Temporary ramps or temporary steps placed between terraces/stands and the pitch to allow ingress/egress should be adequately designed and constructed having regard to the crowd numbers and loading.
- 15.9 Caterers and other services should not be permitted to set up stalls or park vehicles in a manner which would impede the safe evacuation of the venue. It is the Promoter's responsibility to ensure that this does not occur within the venue. Marquees and tents should be sited remote from egress routes.
- 15.10 All exits should be clearly indicated by appropriate notices.
- 15.11 Exit gates should be manned and opened in the manner specified in Paragraphs 15.3 and 15.4. Stewards manning exit gates should be in direct communication with the Central Control Room. Gates should be capable of being opened immediately on instruction from the Central Control Room. An automatic opening/closing device, controlled from the Central Control Room, allied with a fail-safe mechanism, would be the favoured option.

Measures to Facilitate Safe Egress

- 15.12 When the crowd is leaving at the end of the event recorded music should be played at a lower volume to slow down the crowd movement. The loudspeaker system should be used to give repeated directions concerning egress to people leaving. It is vitally important that there is an even distribution of patrons exiting from all exits and stewards should endeavour to achieve this in order to assist a speedy and orderly evacuation.
- 15.13 Safe evacuation is achieved by sufficient safe and evenly distributed escape routes. In practice, it should not rely completely on stewards. Good signage, public address systems and structured arrangements should support safety.

References

1. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.
2. Fire Safety in Places of Assembly (Ease of Escape) Regulations, 1985, Stationery Office, Dublin.
3. Fire Services Act, 1981, Stationery Office, Dublin.

Medical Facilities, First-Aid and Ambulances

General

- 16.1 Detailed requirements in regard to the provision of medical facilities, first-aid and ambulances at sporting events are contained in Chapter 23 of the Code of Practice for Safety at Sports Grounds.¹ These provisions will require adjustment for pop concerts and, in particular, concerts held on open sites.
- 16.2 The role of the Health Board is to:
- (i) maintain normal emergency medical and ambulance cover for the local resident population;
 - (ii) provide medical, ambulance and first-aid cover for all participants;
 - (iii) be prepared to respond to a major accident;
 - (iv) advise on all health matters, including food hygiene, and to monitor and implement the relevant statutory regulations; and
 - (v) provide all health services as outlined in the Major Emergency Plan.
- 16.3 The Health Board should be notified of the event with full details of location, artist(s), and type and number of patrons expected so that adequate medical/hospital and first-aid provision can be made. Such notification should be made at the preliminary planning stage (See Paragraphs 5.8 – 5.12).
- 16.4 The required health facilities on site should be agreed by the Promoter with the Health Board. This will include medical facilities such as nursing, first-aid, ambulance staff and equipment, vehicles and communications. Responsibility rests with the Promoter to ensure that adequate first-aid services are provided.
- 16.5 The Health Board should co-ordinate arrangements being made by Civil Defence and the Voluntary Aid Organisations such as the Order of Malta, Red Cross and St. John Ambulance. Such organisations should receive the same notice of the event as the Health Board.
- 16.6 The measures described elsewhere in this code will, if followed, help to prevent a serious accident. However, for Promoters to fully discharge their safety responsibilities, they should ensure that proper

medical services, including first-aid and contingency medical provision, is available in case there is an incident. Such provision may be required at the venue prior to, during and after the event.

- 16.7 The nature of the concert will determine the extent of medical services required. A concert attracting a mainly young audience will require a wider range of medical services than a concert which attracts an older, more sedate audience. The levels of service indicated in this Chapter are for a mainly teenage audience; these levels can be reduced by up to 40% for a more sedate audience.
- 16.8 Plans to deal with crowd control at the site and in the surrounding areas should have regard to the necessity of ensuring that normal medical and ambulance services to the general public in the area are maintained. This may require the siting of one or two ambulances within the surrounding area before, during and after the event.
- 16.9 The Health Board and the Voluntary Aid Organisations should be consulted by the Event Safety Officer on the layout of the stage area, including stage and front-of-stage barriers, to ensure adequate provision is made to facilitate ease of evacuation for distressed patrons. At least one, and preferably two, fully equipped First-Aid points should be situated adjacent to the front-of-stage barrier(s) to deal with such people.

Operational Plan

- 16.10 An Operational Plan should be prepared by the Organisation(s) providing medical and first-aid facilities at the venue indicating the names of key personnel, their area of control and the location of the ambulances. This Plan should also include a drawing of the venue which should be cross referenced to the Plan.
- 16.11 Medical Control is exercised by the Site Medical Officer and operational control by the Site Ambulance Officer, as designated by the Health Board. The purpose of the plan is to provide adequate patient care and evacuation elements at the venue. This will be provided through First-Aid Points, Medical Centres, and Site Ambulance Control.

First-Aid

- 16.12 It is recommended that the first-aid system set out hereunder be operated at the venue. Properly equipped First-Aid Points should be provided at the concert site. The location and number of First-Aid Points should be provided in agreement with the Health Board and the Voluntary Aid Organisation(s). One or two of these First-Aid Points should be located adjacent to the stage and should be clearly identified on site maps.

Medical Facilities, First-Aid and Ambulances

- 16.13 Each First-Aid team should consist of 2 trained first-aid personnel patrolling a specific area, providing basic first-aid and reporting more serious casualties.
- 16.14 Fully equipped First-Aid Points, at which a number of First-Aid teams are based, should be provided. They should be clearly identified by proper signposting of sufficient size and be clearly visible.

Each Point should be staffed by 4 First-Aid teams, with one team at base and 3 on patrol. Each Point should contain first-aid materials and equipment, the nature of which should be agreed with the Health Board and Site Medical Officer. This equipment should include adequate oxygen supplies.

- 16.15 The First-Aid Points should be provided with telephones or other method of communication with the Medical Centre, the Site Ambulance Control and outside agencies, such as hospital and other emergency services.
- 16.16 The number of first-aid personnel required will vary according to the type of concert, artist, crowd, and age group expected. The number required will also depend largely on the type of venue, i.e., whether in a sports ground or on an open site.
- 16.17 At a concert attended by a predominantly young audience the number of first-aid personnel required may be calculated on the following basis:-

ATTENDANCE	NO. OF FIRST-AID PERSONNEL	
	OPEN SITES	SPORTS GROUNDS
5,000	25	10
10,000	45	15-20
20,000	65	20-35
30,000	80	35-50
40,000	90	70
Each Additional 10,000	10	10

Each group of four First-Aid teams, or less should be overseen by an experienced officer-in-charge.

Medical Centre

- 16.18 It will be necessary to make special provision to deal with people with illnesses such as heart condition, asthma, etc.. The function of the Medical Centre is to deal with more serious casualties which are referred by the First-Aid Points.

The Medical Centre should be staffed by doctor(s), nurses and Ambulance Service staff, equipped to provide Advanced Life Support and to deal with more serious casualties. The number of centres and staffing will depend on the event. Off site medical centre(s) may be necessary.

The on-site Medical Accident and Emergency Team should provide a casualty service and act as a clearing station and treatment post before transferring patients to hospital(s) in the area, if necessary. The Team should ideally include 2 doctors of Registrar status, two junior doctors and six nurses.

- 16.19 The Medical Centre should be large enough to contain a couch with adequate space for people to walk around. In recognised sports grounds a sink, hot and cold running water, drinking water, a work-top and sufficient room to store stretchers, blankets and pillows will be required. On open sites, alternative arrangements must be made to make provision for these facilities in agreement with the Health Board and the Site Medical Officer for the event. This may consist of sterile water or sterile normal saline and a supply of drinking water over a sink or wash-hand basin. The recommended minimum size for the Medical Centre is fifteen square metres.

For open sites, a marquee, mobile unit or other similar structure, could serve as a satisfactory medical centre. It must have proper access for ambulances. For major outdoor concerts a large marquee or similar structure should be provided for use as a casualty clearing area.

Where the capacity of the site, calculated in accordance with this Code of Practice, exceeds 15,000 the size of accommodation should ideally be increased to at least twenty-five square metres and an additional couch should be provided.

Care should be taken to ensure that the doorway is large enough to allow access for a stretcher or a wheelchair. Toilets and other facilities should be available including those suitable for the handicapped.

- 16.20 At any event where the number of spectators is expected to exceed 5,000 a doctor should be designated Site Medical Officer by the Promoter with the agreement of the Health Board for the day(s) of the concert. S/he should be experienced in casualty work and have expertise in cardio-pulmonary resuscitation and in the use of defibrillators. This again will depend on local circumstances and should be agreed in consultation with the Voluntary Organisation/s providing medical facilities for the event. S/he should be responsible for checking before and during the event that the necessary equipment is available. In the event of any major incident the Site Medical Officer, or an appointed deputy, will assume full responsibility for all medical and first-aid facilities on site. It is essential that provision is made for the immediate removal of serious casualties to hospital(s) on the advice of the Site Medical officer or her/his deputy.

Medical Facilities, First-Aid and Ambulances

- 16.21 For larger events extra doctors should be provided, as required, in agreement with the Health Board. For example, the likely number of doctors required for a major concert of over 40,000 attendance, mainly consisting of a young audience, would be four to six depending on the circumstances. The responsibility for the provision of doctors varies in different locations and, in many circumstances, doctors are provided by the Voluntary Aid Organisations but to ensure co-ordination between those Organisations and the Health Board full consultation should take place in the preplanning of the event.
- 16.22 The doctor(s) should:-
- (i) be at the ground at least an hour before the start of the concert;
 - (ii) remain until half an hour after it has ended;
 - (iii) be made aware of the location and staffing arrangements of the First-Aid Points and Medical Centre, and details of the ambulance cover; and
 - (iv) be located in the Medical Centre and approved positions known to the Central Control Room, the Gardaí, stewards and first-aid and ambulance staff: they should be immediately contactable.
- 16.23 A record should be kept by the Health Board and the organisations rendering the treatment of all patients treated and details recorded should include name, address and age of the injured, nature of injury, where it happened, type of treatment, and times of admission and discharge or transfer to hospital. It is recommended that the Health Board should collate such records after the event.

Site Ambulance Control

- 16.24 Site Ambulance Control will provide independent communications (radio and line) for all casualty functions on site and rear links to acute hospital facilities.
- 16.25 Arrangements should be made in agreement with the Health Board for the provision of at least one fully equipped ambulance, in accordance with the standards recommended by the National Ambulance Advisory Council, either from the Health Board or the Voluntary Aid Organisations, to be in attendance at all events with an anticipated crowd of 5,000. Ambulances should be in attendance at the event at least one hour before the event, during the event and half an hour afterwards.

The need for deployment of additional ambulance(s) should be agreed with the Health Board. The suggested ambulance provision is 1 ambulance per 10,000 attending but major outdoor pop concerts with crowds approaching 40,000 or more are likely to require more detailed arrangements, especially on open sites.

16.26 For major concerts the plans will include the provision of the following equipment:-

- (i) mobile Control Vehicle for operational control of all Health Board operations, including casualty evacuation, emergency medical equipment, emergency power and communications;
- (ii) mobile Casualty Unit/Field Hospital;
- (iii) 2 ambulances both preferably cardiac equipped and, where possible, with 4 x 4 vehicle facilities;
- (iv) additional ambulances at locations decided by the Health Board.

16.27 The following is a general guide to the number of ambulances required for various attendances. The number will depend on location, distance to hospitals and local circumstances:-

ATTENDANCE	NUMBER OF AMBULANCES
5,000 – 20,000	1
20,000 – 30,000	2
30,000 – 40,000	3
Each Additional 10,000	1

Responsibility for the provision of ambulances may rest with either the Health Board or the Voluntary Aid Organisations but in all cases the provision should be agreed with the Health Board.

The agreement of the Health Board is required to the appropriate mix of statutory and voluntary services outlined in Paragraphs 16.24 – 16.27.

Parking and Access for Emergency Vehicles

16.28 Special separate parking areas for emergency vehicles should be available and located so as to give them easy and quick access to the inside of the site, including the Medical Centre and First-Aid Points. They should be spacious enough to allow manoeuvring as well as parking, taking into account the number of vehicles required for the capacity of the ground and the layout of the emergency areas.

16.29 In certain cases, ambulances may require a Garda escort but the traffic and emergency plans should take this factor into account in the preplanning of the event.

16.30 All Health Board staff should wear distinctive clothing and should be issued with non-transferable passes for the event.

Reference

1. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.

Emergency Plans

- 17.1 A Major Emergency is any event which, usually, with little or no warning, causes or threatens (a) death or injury, (b) serious disruption of essential services or (c) damage to property, the consequences of which are beyond the normal capabilities of the Local Authority, Gardaí and Health Board.
- 17.2 Major Emergency Plans have been prepared to ensure that in the event of an incident occurring which could result in casualties there would be a measured response from the emergency services and from hospitals to which casualties would be brought. Implementation of Major Emergency Plans are the responsibility of the Local Authorities, Gardaí and Health Boards. Within the framework of these Major Emergency Plans the Department of the Environment has recommended that plans be prepared to cater for specific events.
- 17.3 A Site Emergency Plan should be provided for each site holding a pop concert within the guidelines indicated in The Code of Practice for Safety at Sports Grounds¹ and also shown in Appendix A of this Code. This Plan will need adjustment to deal with pop concerts in sports grounds as the escape route to the pitch will be restricted because of the accommodation of patrons on the pitch. The preparation of such a Plan is the responsibility of the ground management who should consult the Local Authority, Gardaí and Health Board in its preparation in order that the Site Emergency Plan be compatible with the Major Emergency Plan. The Plan should detail the evacuation procedures and make provision for potential disaster situations. The Plan should be tested before the event to establish its validity. Copies of the Plan should be kept at the Ground or Site and all who are concerned should be familiar with its operation, i.e., Promoter, Event Controller, Event Safety Officer, Ground Safety Officer, Chief Steward, Local Authority, Gardaí, Health Board and Voluntary Aid Organisations. The Ground Emergency Plan should be circulated to all the services concerned by Ground Management.
- 17.4 Designated routes for emergency vehicles should be shown clearly on maps and made known to all concerned.

- 17.5 Special routes should be provided within the site to allow easy access for emergency services to all areas of the venue.

Reference

1. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.

Fire Precautions and Safety Measures

General

- 18.1 Guidance on Fire Safety is contained in Chapter 15 of the Code of Practice for Safety at Sports Grounds.¹
- 18.2 Appropriate fire-fighting equipment should be provided at strategic points around the site, including backstage and temporary structures, in consultation with the Local Authority.
- 18.3 Additional fire-fighting equipment should be provided to deal with an outbreak of fire in electrical equipment and in temporary structures constructed for specified activity. Fire stewards should be trained in its operation and be familiar with the arrangements for calling the fire service. One fire steward should be on duty in the stage area while the public are present. Clearly defined fire points, including stage right and left, should be provided and indicated by means of notices. An adequate supply of water should be provided for the use of the fire brigade.

Litter Control

- 18.4 On open sites, and especially at one-day concerts, the need for strict litter control requires careful consideration. The provision of bins on-site could cause a fire hazard and they could be subject to vandalism. However, robust bins should be provided adjacent to food and drink outlets. These bins, which should be securely positioned, should be emptied regularly for the duration of the event. Elsewhere, litter control is best approached by a thorough clean-up the following day. For events of a duration of more than one day a daily litter collection is essential but the above comments regarding bins still apply.

Access for Appliances

- 18.5 The site should be arranged so as to allow for adequate means of access for fire-fighting appliances to within 50 metres of any part of a structure. Access routes should not be less than 4 metres wide, they should not have overhead structures or cables less than 4.5 metres

above the ground and they should be capable of taking the weight (approx. 12 tonnes) of fire-fighting appliances in all weathers. Emergency vehicle routes within the site should be kept clear of obstructions at all times. Access to fire hydrants or other water supplies should not be obstructed or obscured.

Fire Patrols

- 18.6 Where marquees or tents are provided responsible and adequately trained Fire Stewards should be appointed by the Promoter to carry out a regular fire patrol. They will be expected to check for possible fire hazards and to deal with any outbreak of fire pending the arrival of the fire brigade. Such person(s) should be readily identifiable.

Arrangements for Emergencies

- 18.7 Arrangements and procedures for calling the emergency services should be planned well in advance and agreed with the Local Authority, Gardai, and Health Board. Where necessary, additional telephone lines should be installed. The fire brigade should be called immediately to any outbreak of fire.
- 18.8 Contingency plans should be prepared by the statutory authorities to cater for any potential emergency situation that may arise in the area outside the concert site (particularly in the area adjacent to the concert site) by siting adequate emergency vehicles at strategic locations within the area. This is necessary because normal everyday services may not be able to enter the village, town or surrounding area due to the density of traffic.

Reference

1. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.

Public Address System

- 19.1 Guidelines on a Public Address System are contained in Chapter 16 of the Code of Practice for Safety at Sports Grounds.¹ A separate public address system from that used by the artist(s) must be provided.
- 19.2 It is imperative that both systems be under the control of the Promoters at all times during the event. Trained announcers are required to issue warnings if necessary. There should be due liaison and contact between the Promoter and the Gardai. If the senior Garda Officer present considers there is a serious emergency and a risk to life, he can direct the Promoter to override the Artists' sound system so that the emergency notice can be issued by the announcer. Other messages can await the end of a particular act.
- 19.3 Agreement should be reached in advance regarding the use of the public address system. Persons making the emergency announcements should work from a prepared script and be experienced in making such announcements. Performers should not be requested to make emergency announcements but their assistance may be enlisted for calming the crowd. An experienced M.C. would be the most appropriate person to issue such announcements.
- 19.4 The public address system should be controlled from a central point and the auxiliary power supply arrangements should be such as to ensure operation within five seconds of the failure of the main electrical supply. Wiring for the system should be routed through areas of low fire risk and should be protected against mechanical damage and interference by unauthorised persons. Wiring should be installed in accordance with I.S. 3218.² Reference should be made also to BS 7443.³
- 19.5 An effective public address system will be of benefit in the smooth running of the organisation at the concert site and also in locating missing people and making emergency contact with first-aid or other urgently required personnel. A video screen could be used for this purpose.
- 19.6 An agreed number of loud-hailers should be provided as a fail-safe measure.

References

1. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.
2. I.S. 3218: 1989, Code of Practice for Fire Detection and Alarm Systems for Buildings – System Design, Installation and Servicing, National Standards Authority of Ireland, Dublin.
3. BS 7443: 1991, Sound systems for emergency purposes, British Standards Institution, London.

Sanitary Accommodation

General

- 20.1 These guidelines apply to both enclosed and open sites although some of the guidelines are more appropriate for open sites where the necessary infrastructure has to be imported to the site.
- 20.2 Different sanitary arrangements are required for pop concerts in comparison with sporting events as there is likely to be a much greater number of females present. For this reason toilet accommodation must be carefully considered. Account must be taken of whether the concert takes place in an enclosed sports ground or on an open site. The duration of concerts and the availability of food and drink will also influence the provision of sanitary accommodation. Toilets for the event, both inside and outside the ground, should conform to Local Authority and Health Board guidelines and advice. Experience would tend to suggest that, although the provision of an adequate number of toilets is important, the siting of toilet blocks, their distribution, maintenance and supervision should be of paramount importance. In the case of male patrons, adequate and suitably constructed urinals are the main requirement.
- 20.3 The ratio of females to males at pop concerts is dependent on the appeal of the artist(s) in question but generally a ratio of three females to two males is average. However, each concert should be assessed on the basis of the anticipated audience. Arrangements should be sufficiently flexible to allow switching of blocks as circumstances warrant and depending on the expected attendance. This can only be an emergency measure; the real solution lies with providing adequate sanitary accommodation for both sexes.

Location of Toilets

- 20.4 Toilet block sites should be located where they are conspicuous to patrons, easily accessible, on ground which is dry and likely to remain so. Steep approaches should be avoided as these become impossible to negotiate when wet. A suitable non-slip surface, adequately drained, should be provided at each location.

Toilet blocks should be equidistant from all portions of the crowd and should be well signposted and illuminated for evening use. Urinal areas should be screened by a suitably robust screen, at least 1.8 metres high, and the area should be enclosed by appropriate security fencing.

- 20.5 Chemical toilets are only acceptable where main drainage is not available. Where chemical toilets are used the disposal of sanitary waste should be agreed with the Local Authority at the preplanning stage.
- 20.6 Care should be taken to ensure that the location of the accommodation does not obstruct emergency routes. Clear notices, (e.g., "Ladies", "Gents"/"Mná", "Fir") showing the position of sanitary accommodation should be provided throughout the venue and around the perimeter.
- 20.7 In areas which are likely to become particularly congested clear notices should be provided to indicate the nearest alternative sanitary accommodation. Stewards should be aware of these locations.

Maintenance

- 20.8 A high standard of structure, maintenance and supervision is necessary to reduce the risk of breakdown under the immense usage of the sanitary facilities. Sufficient staff with appropriate equipment should be available for emergency repairs. Each block should be provided with a supervisor to marshal crowds and provide cleaning and servicing. Responsibility for routine cleaning should be clearly designated. This applies especially to chemical toilets where regular clearance by suction appliances is required.
- 20.9 The Promoter may be required to provide extra toilets in nearby areas, viz., town/village/city, bus and car parks and approach roads. These should connect to main drainage, where available, otherwise chemical units are acceptable. These should be provided in consultation with the Local Authority and with agreement of the Health Board.

Sanitary Unit Requirements

- 20.10 Toilet facilities should be provided in consultation with the Local Authority and with agreement of the Health Board.

The following guideline is recommended:

Sanitary Accommodation

	WC		URINAL
	Units : No. of Persons		Units : No. of Persons M. Lengths
FEMALE	10	: 1000	–
MALE	2	: 1000	8 : 1000 or 3.6m : 1000

The above ratios are recommended for concerts of 8 hours duration or more. Sanitary accommodation provision may be reduced following agreement with the Health Board in respect of concerts of lesser duration.

In addition to the above sanitary accommodation facilities for the disabled must be provided in strategic locations.

Ideally, toilets should discharge to an existing disposal system where available. Otherwise temporary drainage arrangements may be acceptable to the Local Authority.

- 20.11 Wash hand basins and hand drying facilities should also be provided in consultation with the Local Authority and with the agreement of the Health Board.

The following guideline is recommended:-

- (a) Female: One wash hand basin per 4 WC.
- (b) Male : One wash hand basin per 5 sanitary units.

In accordance with Section 3 of the Local Government (Water Pollution) Act, 1977,¹ pollution of ground water or surface water courses should not be caused or permitted.

Drinking Water

- 20.12 Sufficient drinking water outlets should be provided. A minimum of one drinking point per 1,000 persons is recommended. Drinking water should be from the mains supply. Where mains water is not available or where the continuity of supply is uncertain and stored water may be used, it should be properly protected, supervised and sampled for potability in accordance with the Local Authority requirements and in agreement with the Health Board.
- 20.13 Wells and borings can be used where quantity of yield is adequate and they comply with the Drinking Water Regulations² in relation to the quality of water. The minimum amount of stored water required for drinking and for water to fittings is 4.5 litres per person per day.

- 20.14 Drinking water should be dispensed through standpipes with spring loaded taps and adequate waste drainage. A suitable non-slip surface, adequately drained, should be provided at each location. These facilities should be conveniently accessible at areas of dense crowding particularly at toilet blocks, barriers and front-of-stage.

References

1. Local Government (Water Pollution) Act, 1977, Stationery Office, Dublin.
2. European Communities (Quality of water intended for human consumption) Regulations, 1988, Stationery Office, Dublin.

CHAPTER
21

Electrical Installation, Auxiliary Power and Emergency Lighting

General

- 21.1 The electrical installation at outdoor pop concerts and other musical events should be adequate for normal and emergency situations. Auxiliary power should be available and be sufficient to enable emergency lighting, the Public Address system, CCTV and other electrically powered safety installations to function for at least 3 hours after the failure of the normal supply.

Artificial Lighting

- 21.2 Where the natural lighting in any section of the venue accessible to the public or performers is deficient, adequate artificial lighting should be provided. If the ground is to be used after dark, all parts accessible to the public or performers should be provided with means for lighting adequate to enable them to see their way into, within and out of the venue safely. The lighting levels provided should be in accordance with the recommendations of the CIBSE¹ codes for internal and external spaces. Normal street lighting levels should be the minimum provided. These provisions are 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.
- 21.3 Full details of the electrical installation including equipment details, mains and emergency lighting installation and lighting levels should be submitted as part of the Statement of Safety Procedures one month prior to the event (See Paragraph 5.14).

Electrical Installation

- 21.4 All electrical installations should comply with the edition of the National Rules for Electrical Installations of the Electro-Technical Council of Ireland² current at the date of installation, and all other E.T.C.I. publications where they apply. Attention should also be paid to the Safety, Health and Welfare at Work (General Application) Regulations Part VIII.³

- 21.5 A venue's fixed electrical installation should be inspected prior to an event and a completion certificate as prescribed in the E.T.C.I.'s National Rules for Electrical Installation issued. A separate E.T.C.I. completion certificate should be issued for any temporary electrical installation carried out.
- 21.6 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 submitted as part of the Statement of Safety Procedures one month prior to the event.
- 21.7 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 an obstruction when crossing passageways. 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.
- 21.8 The base of any floodlighting tower should be earthed in accordance with BS 6651⁴ which also contains advice on bonding and earthing for lightning protection. Protection against lightning strike in accordance with BS 6651 should be provided for all floodlighting towers, the stage, multi-level stands and other high structures.
- 21.9 A qualified electrician familiar with the operation of the equipment should be present at all major events.

Emergency Lighting

- 21.10 Emergency lighting for use in the event of a failure of the general lighting should be provided in all locations accessible to the public, staff or performers and along all exit routes, with exit signs clearly illuminated. A permanent installation should conform with I.S. 3217: 1989.⁵ The emergency lighting system should be completely separate from the normal lighting system and should be of the maintained type along all exit routes. Unless two entirely independent supplies can be obtained from outside sources, the emergency circuits should be connected to a source of power located on the premises, e.g., storage batteries or a diesel generator with suitable changeover facilities.
- 21.11 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.
- 21.12 The maintained emergency lighting system should operate automatically on the failure of the normal lighting.

- 21.13 The emergency lighting system at the venue should be fully tested immediately prior to an event.
- 21.14 These requirements relate to grounds where light levels and usage dictates that there is a need for such facilities but if night-time activities are proposed these requirements are essential.
- 21.15 A stand-by generator should be installed at all major events where night-time activities may occur, in order to minimise panic in the event of the mains electricity supply failing. It should provide power to lighting fittings to provide an increased level of illumination in the main public areas, exit stairways and passages in the event of mains supply failure.

It should also provide power to medical equipment rooms, fire detection systems, public address systems, CCTV and other lighting fittings which are part of the emergency lighting system.

The circuitry should be so arranged as to enable the stand and terrace lighting to be switched on manually in the event of any problem. While an event is in progress the generator should be running, thus being available for the immediate take up of the load if mains supply failure occurs.

- 21.16 If a power failure occurs consideration should be given 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 continue a fixture or event provided it is scheduled to finish and the site is cleared within this period and no other emergency situation exists. To supply such a load a generator rather than a central battery system is likely to be required.
- 21.17 An additional back up emergency power supply will be necessary if an event is to continue. The Promoter should take into account the needs of the site in deciding the type of power provision and make contingency plans for the failure of the power supply.
- 21.18 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 E.T.C.I.'s requirements for generators – ET 104/1982 or ET 104A/1988, as applicable. The location should be such as to prevent the spread of fire. All equipment should be installed, maintained and tested in accordance with the manufacturers' instructions and relevant Irish, British or other equivalent European standards, specifications and codes of practice.

Public Address System

21.19 Where the public address system is part of the fire warning system it should conform to I.S. 3218: Part 1.⁶ (See Paragraph 19.4). Auxiliary power will, in such circumstances, be needed to ensure the continued use of the system in the event of fire or other emergency.

References

1. I.S. 3218: 1989, Code of Practice for Fire Detection and Alarm Systems for Buildings – System Design, Installation and Servicing, National Standards Authority of Ireland, Dublin.
2. National Rules for Electrical Installation, Electro-Technical Council of Ireland, Dublin, 1988.
3. Safety, Health and Welfare at Work (General Application) Regulations 1993, Part VIII: Electricity, Stationery Office, Dublin.
4. BS 6651: 1992, Code of Practice for protection of structures against lightning, British Standards Institution, London.
5. I.S. 3217: 1989 Code of Practice for Emergency Lighting, National Standards Authority of Ireland, Dublin.
6. I.S. 3218: 1989, Code of Practice for Fire Detection and Alarm Systems for Buildings – System Design, Installation and Servicing, National Standards Authority of Ireland, Dublin.

Traders and Vendors

Off-Site

- 22.1 It is necessary for traders who are selling food and refreshments to hold a current Health Board licence for legitimate trading. Gardai should use all powers available to them to confine traders to designated sites. These sites should be agreed in consultation with the Local Authority and the Health Board. There should be an agreed strategy between the Local Authority, Gardai and Health Board, for dealing with non-licensed traders. Trading should only be allowed on a limited basis inside the Garda cordon on the approach roads to the concert venue. This will minimise inconvenience to residents and aid free flow of pedestrian traffic. Adequate and suitable toilets, water supply and refuse disposal should be available to licensed vendors for their sole use. The provisions of the Casual Trading Act 1995¹ which repeals the Casual Trading Act, 1980 with effect from 1st May, 1996, apply to persons who carry out casual trading, i.e., selling goods at a place (including a public road) to which the public have access as of right or any other place that is a casual trading area.

On-Site

- 22.2 It is necessary to provide food and refreshments for patrons who may be at the concert for up to 10 hours. Temporary kiosks, stalls and canteens for the sale of goods and refreshments should be permitted only in locations agreed with the Local Authority, Gardai and Health Board in conformity with the law. The organisation and letting of on-site catering should be controlled by one group on behalf of the Promoter. Lists of interested vendors should be submitted to the Health Board for vetting at least one month in advance of the event. Only vendors who possess a current Health Board licence should be considered. Centralised food vending on site enables the provision of services to be maximised. Adequate and suitable toilets, water supply and refuse disposal should be available to licensed vendors for their sole use.
- 22.3 Stalls or vehicles for the sale of goods and refreshments should not be permitted to traverse gangways and concourses while members of the public are present. All refreshment centres and mobile units should

comply with the requirements of the Health Board with regard to food hygiene. No glass containers or glass bottles should be permitted for the service of drink or food.

- 22.4 With regard to spacing and location of traders the following conditions should apply:-
- (a) adequate spacing should be provided between trading units following consultation with the Local Authority;
 - (b) high risk units, e.g., petrol driven generators and LPG cylinders should be located away from crowded areas and adequately protected; and
 - (c) each unit should carry appropriate fire extinguishers and fire blankets, the provision of which should be decided following consultation with the Local Authority.
- 22.5 Vending units should be sited as shown on the Site Layout Plan with units using gas fired cooking equipment sited at least 6m from any other unit. Gas supplies to units should be in areas which are fully secured against entry by members of the public. Ready access to these areas should be available only to designated staff to enable them to shut off the gas supply in the event of fire or other emergency. The installation of supply pipework from gas storage cylinders/appliances should be carried out in accordance with appropriate recognised standards.

Reference

1. Casual Trading Act, 1995, repeals the Casual Trading Act, 1980, with effect from 1st May, 1996, Stationery Office, Dublin.

Pop Festivals

- 23.1 Pop Festivals, extending over a number of days present additional problems in comparison to one day events. Many thousands of patrons will be accommodated in the area for the duration of the festival and normal facilities may not be able to cater for such crowds. Special temporary arrangements should be made in consultation with the emergency services.
- 23.2 The extra facilities to be provided include the likely provision of official camp sites (see Chapter 24) and temporary toilet facilities both near the concert site and in the surrounding area including the village, town or city centre. Such extra facilities also include outlets for drinking water, washing, food and refreshments. It is desirable that provision is made for the frequent removal of litter for the duration of the event for safety reasons and to maintain an acceptable environment for the local population.
- 23.3 Planning for such events involves the Promoter, the statutory authorities and all others involved in organising the concert. The final plan should be regarded as an agreed strategy between all these organisations. During pop festivals it is desirable to hold debriefing meetings in the morning and evening for the duration of the event to assess how the plan is working and make adjustments if necessary for the following day or days.

General

- 24.1 The holding of a pop festival will involve a large number of people seeking accommodation in the area for a number of days. The surrounding areas may not have the facility to absorb such an influx of people and temporary arrangements must be made. A large number of these patrons usually require accommodation for tents. In these circumstances, it will be necessary for the promoter to arrange for the provision of temporary campsites. If campsites holding many thousands of people are required special standards must apply. Guidelines for such campsites are set out hereunder. Even small campsites should have regard to these guidelines, where appropriate.

Site Suitability

- 24.2 The proposed campsite should be dry, reasonably level and well drained with a mature grass surface capable of withstanding heavy traffic for the duration of the event. The grass should be cut as short as possible prior to the event and grass cuttings should be removed in order to reduce the risk of fire.

Boundaries

- 24.3 Large campsites should be sub-divided into sections/corrals, e.g., A1 – A16, B1 – B16, etc., to control the numbers allocated within each corral and to allow easy identification of each tent on site. An emergency route should be maintained between the corralled sections and should be clearly defined by timber posts and luminous tape strip. The boundaries to each corral should be similarly defined with each corral having a prominent sign indicating its identification letter/number. No part of a corral should be more than 25m from an emergency route.

Sanitary Accommodation

- 24.4 Washing facilities should be provided at a minimum ratio of one wash hand basin per sanitary unit provided. Sanitary accommodation should be provided to the standards outlined in Chapter 20 in an area not prone to flooding. This is likely to entail the provision of a large number of chemical toilet units. These should be installed in separate blocks depending on the nature and size of the campsite. It is desirable that toilets are sectioned by barriers at each block, to separate male from female units. There should also be a 24 hour security presence on each toilet block. The sanitary accommodation should not be less than 15 metres and not more than 60 metres from any tent.
- 24.5 Water outlet units fitted with an adequate number of taps for drinking should be provided at each of the sanitary block locations. The level of these facilities should be agreed with the Local Authority and the Health Board. A suitable non-slip surface, adequately drained, should be provided at each location.
- 24.6 Toilets should be cleaned and serviced as often as necessary but at least once every 8 hours.
- 24.7 There should be regular inspections of toilet blocks by service personnel who should work under a Supervisor designated by the Promoter. Access should be provided for Health Board personnel at all times.

Refuse Collection

- 24.8 A reliable and frequent refuse collection service should be provided. The site must be maintained in a clean condition during the festival and left clean and tidy after the event.

Site Lighting

- 24.9 An adequate lighting installation should be provided on the site to enable patrons to see their way to their designated corral and to move about the site safely. The installation should, in general, achieve normal street-lighting levels, with enhanced levels in the areas of the site entrances, the toilet blocks and the site marquee. (Further guidance on electrical installations is given in Chapter 21).

Staffing

- 24.10 Supervisors should be appointed for Campsite Build-up, Campsite Operations, and Campsite Sanitary Services.

Admission

- 24.11 On checking in to the site it is suggested that campers should be issued individually with a ticket indicating their designated corral. They can then be directed to the appropriate corral and be instructed to keep this identification ticket/wristlet for the period of the festival as a means of recalling their location on site. Each corral should be well sign- posted to facilitate its identification.

Security Arrangements

- 24.12 A large number of stewards should be provided at the site 24 hours per day during the period that the site is occupied. The number should be in accordance with the standards outlined in Chapter 13 of this Code. Stewards should be adequately briefed on their duties before the event. Stewards should patrol each section of the campsite on foot, supported by stewards in mobile patrols. It is essential to provide foot patrols at night when patrons are asleep in tents. They are highly vulnerable to fire and criminal activity and will be completely dependent on such protection.

Site Notices and Instructions to Campers

- 24.13 Instructions to campers should be issued with each campsite ticket sold. These instructions should also be clearly posted (in enlarged print size) at each of the campsite entrances, at each toilet block and at other strategic locations. It would also be advisable to mount an appropriate version of the campsite plan at these locations. A 'you are here' indication, together with the corral marking system, should be shown.

First-Aid/Medical Facilities

- 24.14 The Promoter should ensure that first-aid cover is provided at the site either by the Health Board or by arrangement with the Voluntary Aid Organisation(s) on a 24 hour basis. This is likely to entail the siting of ambulance(s) on the site at the discretion of the Health Board and is particularly necessary on very large sites. It may also be necessary to provide an off-site Medical Centre where there is no acute hospital within a reasonable distance.

Emergency Access to all Parts of Site

- 24.15 It is desirable to keep a number of four wheel drive vehicles on the site to facilitate security patrolling of the entire site using the designated emergency access route. This is necessary because, in the event of heavy rain, no other transport will be effective on grass.

- 24.16 While these will be primarily for the use of the security personnel they should also be available to first-aid/medical personnel and other emergency services if they require access within the site. One of these vehicles should be fitted out with a bank of fire extinguishers. Such fire extinguishers will then be available to designated security personnel (trained in the use of fire extinguishers) to deal with any fire outbreak on the campsite in advance of a fire brigade response. The level of provision should be decided following consultation with the Local Authority.

Food and Refreshments

- 24.17 It will be necessary to have suitable food outlets on the site and these should conform to the standards set out in Chapter 22 of this Code.

Entertainment

- 24.18 As campers will be on the site for long periods suitable entertainment is desirable. This should be only arranged after full discussion with the Gardaí.

Plan of Campsite

- 24.19 A suitable plan indicating all the above facilities, layout of corrals, etc., should be provided and made available to the emergency services and all concerned with the running of the event.

Communications

- 24.20 A communications system, including telephone and other methods, should link all stewards and other personnel with campsite headquarters. There should also be a link with Garda Headquarters, Promoter, Health Board, Local Authority and Central Control on the concert site. Stewards on duty in the campsite should each carry a personal radio hand-set. A base control unit should be manned by a Supervisory Steward on the campsite to control the radio system and co-ordinate stewarding.

Emergency Arrangements

- 24.21 There should be a planned system in force to deal with any emergency that may arise and the supervisors should be aware of the Major Emergency Plans of the Gardaí, Health Board and Local Authority. The planned emergency procedures should include procedures for the

action to be taken in the event of a fire, crowd disturbance, need for evacuation, or other such emergency.

Safe Holding Capacity

- 24.22 A safe holding capacity for each campsite should be determined with the Local Authority, Gardai and Health Board. This safe holding capacity should take into account the above guidelines and also the provision of a minimum space of 3 metres, in all directions around each tent or other temporary dwelling. The number of persons permitted should not exceed 600 per hectare.
- 24.23 Dormitory style accommodation in large tents or marquees is not recommended.

Vulnerability

- 24.24 Camping equipment is as varied as individual tastes. Safety standards of tents, etc., are similarly varied. If patrons are under the influence of drink or drugs they can be highly vulnerable in an emergency situation. In addition, such patrons have far greater potential to create hazards such as fires, etc.. Account should be taken of this by the Promoter or those who have responsibility for the campsites.

Miscellaneous Provisions

Temporary Stands, Stages and other Structures

- 25.1 Guidance on temporary structures is contained in Chapter 14 of the Code of Practice for Safety in Sports Grounds.¹
- 25.2 The procedures outlined therein in relation to structural design, siting, erection, management during use and dismantling should be strictly adhered to.

Seating

- 25.3 It is difficult to mix seating and standing accommodation successfully on the pitch area. The provision of seats can lead to patrons standing behind, and migrating into, the seated area in front with resultant confrontation between patrons. It is, therefore recommended that the pitch be either all seater or all-standing. When temporary seating is used at a concert it will be necessary to ensure that all seats are adequately fixed with ground anchors or other method and fixed in position following consultation with the Local Authority. A layout plan of the seating, including passageways and exits, must be prepared in consultation with the Local Authority.

Dressing Rooms

- 25.4 Dressing rooms should be provided with washing and toilet facilities and should be readily accessible to the stage. Marquees, tents, caravans or portacabins can, in certain circumstances, be used as dressing rooms and their siting, construction and erection should be decided in consultation with the Local Authority. Suitable means of escape should be provided in the event of fire or other emergencies. Dressing rooms should not be positioned in such a manner as to cause obstruction or impede safe evacuation during an emergency.

Tents and Marquees

- 25.5 Guidance is contained in Paragraphs 14.22 – 14.30 of the Code of Practice for Safety at Sports Grounds¹. The purpose of the proposed

tents and marquees must be assessed and a suitable design provided in order to meet the appropriate flammability standard. Hazards such as instability, tripping over guide ropes, etc., must be taken into consideration in the preparation of safety arrangements. The spacing between portacabins, caravans, catering concessions and other structures should be at least 6 metres. For large tents and marquees this distance should be increased to 12 metres so that a fire starting in one such structure cannot spread to adjacent structures.

Sale of Alcohol (General)

- 25.6 Enforcement of the liquor licensing laws is a matter for the Garda Síochána. Licensees should co-operate with Gardaí in drawing up plans for the preservation of public order in so far as the supply and consumption of intoxicating liquor during events is concerned. Areas of mutual interest may include voluntarily closing premises during certain periods, re-opening premises, prevention of under-age drinking, disposable drinking utensils, etc.
- 25.7 A Judge of the District Court has power under the provisions of Section 19 of the Intoxicating Liquor Act, 1927² to order the closing of premises licensed for the sale of intoxicating liquor in the interest of public peace and order if such a course is expedient.

Sale of Alcohol at the Venue

- 25.8 A view generally put forward is that if alcohol is on sale within the venue less drinking before the event is encouraged and this may lead to less drinking overall. Each event must be considered on its merits and consideration should be given to the special circumstances and type of crowd anticipated. Patrons should not be allowed to bring alcohol into the venue but, subject to compliance with the licensing laws, alcohol could be sold there. The practice of patrons consuming alcohol in the immediate environs of the venue should be discouraged. In particular, a strict system of control on the sale of alcohol should be in place to prevent sale or supply by others to underage persons. The promoter has responsibility to ensure that these controls are in place and functioning.
- 25.9 Drinks should be served only in plastic beakers and cups. Such containers may have plastic film or paper lids unless the lid enables the container to be used as a missile. In such cases the lid shall be removed at point of sale. Only stout, beer and soft drinks should be sold. No spirits should be sold. Proper litter disposal facilities should be provided convenient to the point of sale of alcohol.

Miscellaneous Provisions

- 25.10 It will be necessary to apply to the District Court for an Occasional Licence authorising the holder of an On-Licence to sell intoxicating liquor at a place which is not licensed for such sale. Attention is directed to the provisions of Section 11 of the Intoxicating Liquor Act, 1962,³ governing the grant of occasional licences.

Pitch Covering

- 25.11 Any covers used to protect the pitch should be flame retardant, properly secured and should be installed in a manner that will prevent trip hazards.
- 25.12 Materials used to secure covers should be such that they may not be used as missiles. The covering must also be firm and impossible to remove or interfere with so that danger to patrons can be avoided.

Crime Prevention

- 25.13 Promoters of concerts and owners of concert sites, campsites, car parks as well as other private property to which the general public have access, have a responsibility to protect their customers as far as is reasonably practical from personal violations such as physical assaults, theft and drug abuse, including drug trafficking. This can be achieved through the provision of an adequate number of properly trained stewards.

Plans on crime prevention should be prepared beforehand in conjunction with the Gardaí covering all aspects of security on campsites, concert sites, car parks etc. It is not sufficient to post up disclaimer notices on such sites warning patrons that owners can accept no responsibility for damage to or loss of property.

Aircraft Restrictions

- 25.14 In recent years a practice has developed whereby light aircraft and helicopters fly over concert sites while major events are underway, trailing advertising or promotional banners. This could be potentially hazardous for crowds attending these events. Any mishap with an aircraft could lead to major casualties in the site due to the numbers congregated in a relatively confined area thereby resulting in a totally avoidable major emergency. Such fly-overs should be prohibited in the interests of public safety. The use of large advertising balloons directly over sites or anchored to adjoining land could, if they collapsed, lead to serious crowd panic and consequently, should be prohibited. While

the banning of flights over sports grounds or concert sites is a matter for the Department of Transport, Energy and Communications, the banning of large balloons, positioned in or over the site is under the control of the Promoter.

References

1. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.
2. Intoxicating Liquor Act (Section 19), 1927, Stationery Office, Dublin.
3. Intoxicating Liquor Act (Section 11), 1962, Stationery Office, Dublin.

Site Emergency Plan

1. Introduction

- 1.1 The Promoter should prepare a Site Emergency Plan to deal with a serious emergency on the site with the advice of the Local Authority, the Gardaí and the Health Board.
- 1.2 The Site Emergency Plan should be prepared within the overall context of the Major Emergency Plans of the Local Authority, the Gardaí, and Health Board and fit into the details of these plans.
- 1.3 It is suggested that the core of the Site Emergency Plan should follow closely the guidance set out hereunder which is based on the Report of the Committee on Public Safety and Crowd Control.¹
- 1.4 When drafting a Site Emergency Plan account should be taken of the terms of the Fire Safety in Places of Assembly (Ease of Escape) Regulations, 1985,² the Code of Practice for the Management of Fire Safety in Places of Assembly³ and all relevant legislation for the time being in force.
- 1.5 Account should also be taken of the recommendations and guidance set out in this Code and the Code of Practice for Safety at Sports Grounds.⁴
- 1.6 Where the concert is being held in a sports stadium the plan should make due allowance for the fact that the pitch is occupied by patrons, stage, lighting, sound equipment, etc.
- 1.7 In the preparation of the Plan it may be necessary to prepare variations of the Plan, e.g., Plan A, Plan B etc., to cater for evacuation from various sections of the site, depending in which section of the site the emergency occurs, and the escape routes available. Each plan would require appropriate crowd and traffic management plans to be activated in the event of a serious emergency.
- 1.8 Systems should be in place to test, review, revise and update the Plan in the light of experience. This should be carried out in

consultation with representatives of the Local Authority, the Gardaí, and the Health Board.

- 1.9 A Site Emergency Plan should be prepared whether or not a Ground Emergency Plan is in existence. (See Appendix F of the Code of Practice for Safety at Sports Grounds).⁴ This Site Emergency Plan is separate from the Ground Emergency Plan.

2. Definition of Serious Emergency

A serious emergency is defined as any event causing or threatening to cause death or injury to patrons at a concert site resulting from serious crowd disorder, major fire, collapse of a section of a stand or terrace, toxic chemical spillage on roads or railway lines adjacent to the venue, explosion, bomb threat or other unforeseen event necessitating partial or total evacuation of the venue.

3. Definitions of Key Personnel

3.1 Event Controller

This is the person who has overall responsibility for management of an event. S/he is assisted within the site by the Gardaí, Stewards and all other personnel, whether paid or voluntary, but retains control unless a serious emergency occurs, at which stage s/he hands over to the Emergency Controller.

3.2 Emergency Controller

The Emergency Controller is the Senior Garda Officer present who will take over control of the entire operation until or unless other emergency services, i.e. Health Boards and Fire Authorities are present, in which case each service will exercise control over its own operations.

4. Activation of Plan

The Emergency Controller (Senior Garda Officer) present will activate this Plan after consultation with the Event Controller. Should the Event Controller and the Garda Officer disagree when the Garda Officer considers the risk to life or breach of the peace to be so great, that it is imperative to implement the Site Emergency Plan, the Garda Officer can over-rule the Event Controller. It must be emphasised that public safety is of paramount importance in arriving at such decisions. The Garda Officer will notify the Communications Room and Garda Divisional Headquarters immediately of the activation of the Plan. All messages shall begin with the following statement:

"This is (Name & Rank of Garda Officer), A Serious Emergency has occurred/is imminent at (Name of Venue). The Site Emergency Plan is now in operation".

5. Function of Local Authority, Gardaí and Health Board

The functions of the Local Authority, the Gardaí, and the Health Board are as set out in the Major Emergency Plans of those authorities.

6. The Promoter

The functions of the Promoter are to:-

- (i) place all facilities on the site at the disposal of the Emergency Controller;
- (ii) provide areas suitable for collection of casualties, first-aid treatment, etc.;
- (iii) provide an information centre on the site for the use of the Gardaí and other agencies;
- (iv) provide drawings of the site for the Emergency Controller;
- (v) place all available personnel at the disposal of the Emergency Controller;
- (vi) provide adequate medical staff on site;
- (vii) provide suitable first-aid facilities;
- (viii) provide suitable areas for casualties;
- (ix) provide mortuary facilities;
- (x) provide sufficient stretchers; and
- (xi) provide an adequate communications system.

7. Telephone Numbers

The emergency plan should contain an Index setting out the telephone numbers of the contact officers in the various services. This Index can be based on the telephone numbers included in the Major Emergency Plans of the Local Authority, the Gardaí, and the Health Board.

8. Evacuation Arrangements

- 8.1 As indicated at Paragraph 1.7 of this Appendix it may be necessary, because of the nature of the site, to have two or more Plans to deal with an emergency. These Plans should be outlined on a drawing and should indicate in what direction patrons would be evacuated depending on the location of the disaster. The plans should indicate the exits through which the public would be

channelled and Garda arrangements on the surrounding roads or streets.

These arrangements should indicate where Garda barriers would be erected and the direction in which the public would be dispersed. It should also set out the area and the roads to be kept clear of traffic to allow access and egress for Emergency Services. Inside the ground emergency routes must be kept clear at all times. Evacuation should proceed without creating or adding to a panic situation.

8.2 Mortuary Facilities

The Plan should indicate where mortuary facilities will be available. Such facilities should be in more than one location to ensure their availability irrespective of the point of origin of the emergency.

8.3 The Disaster Area

Gardaí and Stewards should seal off the area of the disaster to enable rescue workers, ambulance crews and fire tender crews do their work. Members of the public and the media should be kept outside the disaster zone.

8.4 Fatalities

Identification of dead bodies should be made and the location in which the bodies are found should be noted. Ground Management and/or the Promoter should provide plastic type body bags to hold human remains, as well as duplicate labels, gloves, markers, etc.

8.5 Public Address System

Full use should be made of the Public Address System to inform and direct the crowd. Messages broadcast should be decided by the Event Controller on the advice of the Garda Officer in charge. Messages should be kept short.

8.6 Potential Disaster

If a serious situation is seen to be developing, the Event Controller must have the facility to stop or delay the start of the concert. In certain circumstances the responsibility for stopping the concert may fall upon the Garda Officer in charge.

In the event of a situation arising where it is necessary to open a gate to allow access to patrons to prevent death or serious injury, it must first be established that there is room in the relevant section of the site to take the extra crowd and that, once inside, they are moved to an area where there is room to accommodate them without danger to themselves and to those already in that section of the site. This matter should be highlighted at the briefing session before the event.

8.7 Doctors

A Doctor experienced in casualty work should be designated the Site Medical Officer for the duration of a major event. S/he should be responsible for checking before and during the event that the necessary equipment and drugs are available. S/he should wear distinctive clothing and be located in a designated seat/location which should be known to the Event Controller, Local Authority, Gardaí, Health Board, and stewards.

8.8 Central Control Room

In the event of the Central Control Room being put out of commission an alternative Control Room with appropriate facilities should be designated in the Plan. In drawing up a plan additional telephone lines may have to be sought from Telecom Eireann by the Promoter if facilities presently available are out of order or inadequate.

8.9 Responsibility

Emergency matters outside the site are the responsibility of the statutory authorities. Within the site the Event Controller has the responsibility to ensure that stewards:-

- (i) are aware of the Site Emergency Plan;
- (ii) act under the Chief Steward as a team to evacuate the crowd away from the area of disaster;
- (iii) are aware of the exact location of all exits and fire hydrants; and
- (iv) staff all exit gates.

8.10 Stewards

The site should be divided into zones. Ground Management and/or the Promoter should operate the rank structure among stewards. Stewards should wear distinctive clothing. A Supervisory Steward should be responsible for each zone and should be in a position to put the relevant Emergency Plan into operation at short notice. S/he should have responsibility to instruct stewards under her/his control and insist on instructions being carried out in the event of an emergency.

8.11 Flexibility of Plan

As the nature of a disaster, or the part of the site it might strike can vary, the areas to be evacuated, location of mortuaries, etc., will require flexibility in the Plan.

8.12 Availability of Plan

The Plan statement with maps, should be made available by the Promoter to all officials, Stewards and Gardaí engaged on duty on the site. The Local Authority and the Health Board should also be provided with copies of the Plan.

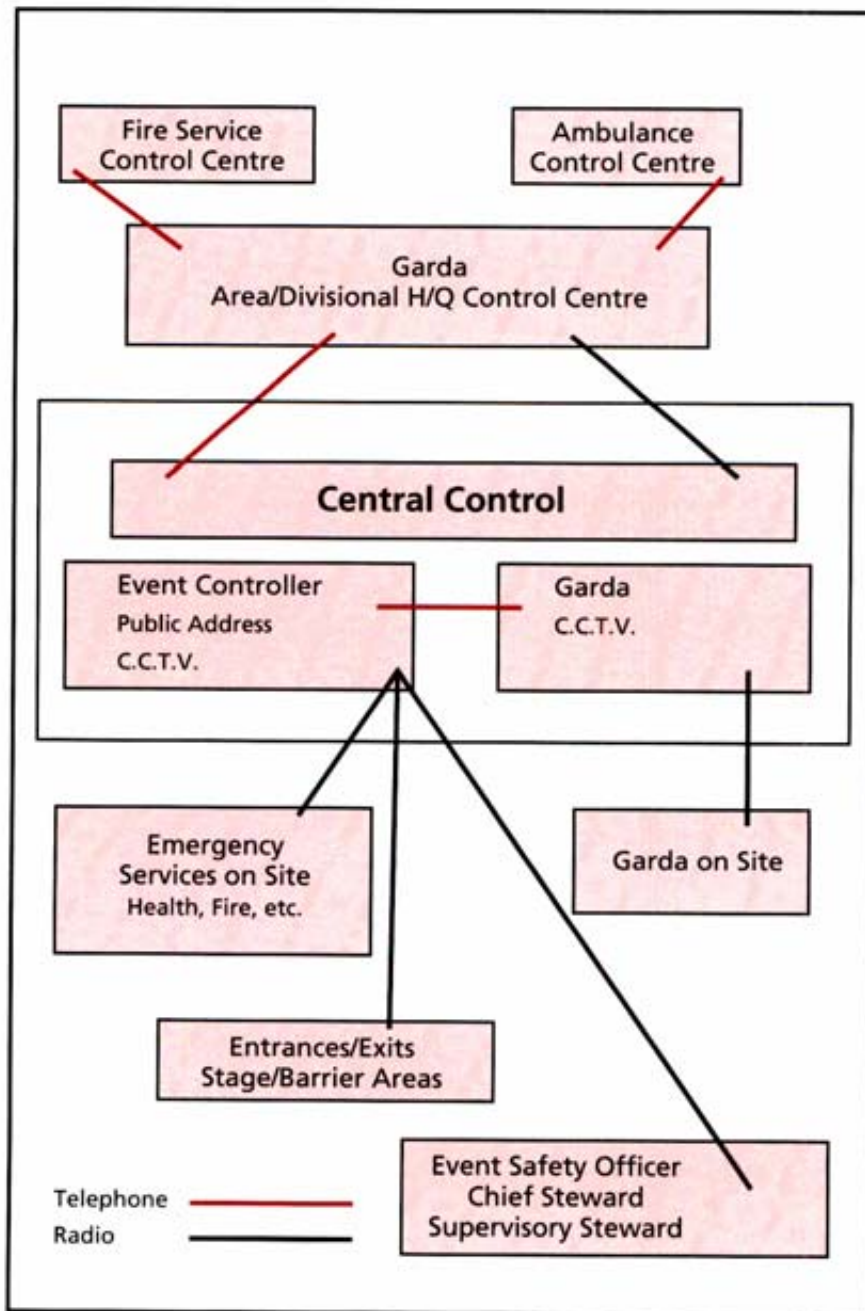
8.13 Review of Plan

The Site Emergency Plan should be reviewed before each event.

References

1. Committee on Public Safety and Crowd Control: Report February 1990, Stationery Office, Dublin.
2. Fire Safety in Places of Assembly (Ease of Escape) Regulations, 1985, Stationery Office, Dublin.
3. Code of Practice for the Management of Fire Safety in Places of Assembly, Stationery Office, Dublin 1991.
4. Code of Practice for Safety at Sports Grounds, Stationery Office, Dublin, 1996.

Suggested Communications Scheme



Locations visited and Concerts attended by working party

Locations visited by the working party

College Green Concert, Dublin
 Croke Park, Dublin
 Greater Manchester Exhibition and Event Centre, Manchester
 Kerins O'Rahilly G.A.A. Club, Tralee
 Lansdowne Road Rugby Stadium, Dublin
 Maine Road Football Stadium, Manchester
 Páirc Uí Chaoimh, Cork
 Royal Dublin Society Showgrounds, Dublin
 Slane Castle, Co. Meath.
 Semple Stadium, Thurles
 The Point Theatre, Dublin
 Wembley Arena, London
 Wembley Stadium, London

Concerts attended by the working party

Dire Straits	–	The Point Theatre, Dublin, 1991
Rod Stewart	–	Royal Dublin Society Showgrounds, Dublin, 1991
Guns 'N' Roses	–	Wembley Stadium, London, 1991
Guns 'N' Roses	–	Slane Castle, Co. Meath, 1992
Neil Diamond	–	Croke Park, Dublin, 1992
Michael Jackson	–	Lansdowne Road Rugby Stadium, Dublin, 1992
Prince	–	Royal Dublin Society Showgrounds, Dublin, 1992
Feile '92	–	Semple Stadium, Thurles, 1992
Bruce Springsteen	–	Royal Dublin Society Showgrounds, Dublin, 1993

APPENDIX

D

Glossary

Local Authorities:

- the bodies responsible for the administration of a wide range of services at local level. The Local Authorities' area of responsibility includes Planning, Engineering Services, Fire and Building Control and references to the Local Authority in the Code of Practice should be taken to comprehend such services, where appropriate.

Health Boards:

- boards established under the provisions of the Health Act, 1970, responsible for the administration of the health services.

Voluntary Aid Organisations:

- Order of Malta, Red Cross, St. John Ambulance Brigade.

Place of Safety

- a place where a person is no longer in danger from fire or other emergency.

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