JUSTITSMINISTERIET

Guidelines on safety at outdoor music events and similar events

July

Contents

Preface

This guide is an updated version of "Guide to safety at outdoor music events and similar events", which was first published by the Ministry of Justice and the Ministry of Culture in 2003. The work on updating the guide has been carried out by the monitoring group for safety at outdoor music events. The National Police, the Danish Health Authority, the Danish Social and Housing Authority, the Danish Veterinary and Food Administration, the Danish Meteorological Institute, Dansk Live, the Danish Road Safety Authority, the Ministry of Culture, the Danish Emergency Management Agency, Danske Beredskaber, KL, the Danish Safety Technology Authority and the Danish Working Environment Authority have all contributed to the update of the guide.

The guidelines are intended for professional organisers, safety officers and other planners of large outdoor music events and similar events. The guidelines are not intended for voluntary associations and non-professional actors who plan smaller outdoor music events and festivals, etc., but may be used for inspiration and reference.

The purpose of the guidelines is to provide organisers of large outdoor music events with a tool that can support them in their planning and help ensure that the event is conducted in a safe manner.

Each chapter provides an overview of issues that need to be considered in relation to safety when holding a major outdoor music event. The guide is primarily intended for organisers, but authorities may also use it in connection with their case processing and contact with organisers.

Safety is complex and depends on local conditions. Not all conditions are described in these guidelines, so it is important to carry out a broad risk assessment.

The organiser of an event is responsible for ensuring that the rules applicable to the area are observed. Guests attending the event expect that their safety will be taken care of and that the organiser has anticipated situations that may arise in connection with a large outdoor music event.

The appendix to the guidelines contains a list of the laws and regulations that are relevant to consider when planning a large outdoor music event. There is also a bibliography that may inspire further reading of relevant safety-related literature. However, it is emphasised that it is the organiser who is responsible for complying with the relevant rules in connection with the staging of a specific event.

The aim of this guide is to make it easier and more transparent to plan and carry out large outdoor music events. The guide describes general conditions and

challenges that are relevant during an event, but does not provide exhaustive examples or pre-approved solutions for, e.g., crowd safety management.

1.0 Planning safety

This chapter covers the following topics:

- **Contact with local authorities**
- **Organisation of security measures**
- **Security planning**
- **Phases of the event**
- **Security personnel**
- **Planning meetings**
- **Information management and situation overview**
- **Security evaluation**

1.1 Introduction

The organiser is responsible for ensuring that the event is planned and carried out in a safe manner. The organiser may be an organisation, a company, a foundation, an association or a private individual.

Organising safety is an essential part of planning the overall event and should therefore begin at the same time as the planning of the event. For large events, it is recommended to initiate dialogue with the authorities and begin planning at least 9-12 months before the event takes place.

Effective security planning for an outdoor music event must identify and analyse the risks that may arise during the event and form the basis for eliminating or mitigating those risks. The amount of resources needed for planning will depend largely on the size, type and duration of the event.

As an organiser, you must be aware that even in a series of similar events, such as a tour, each individual event requires a permit from the police. At the same time, it is the organiser's responsibility to submit the material on which the authorities will base their decision in good time. The authorities will engage in dialogue with the organiser and can provide guidance on the conditions that must be met in order for the event to be granted permission to take place.

1.2 Contact with local authorities

In connection with the holding of outdoor music events, Section 1 of the Executive Order on Public Entertainment requires that permission be obtained from the police for the holding of concerts, and permission will typically also need to be obtained from other public authorities.

Depending on the size of the event, it may be a good idea for the organiser to invite the police, emergency services, pre-hospital emergency services, the local council and other relevant partners to an initial meeting where proposals for the planning and implementation of the event can be presented and discussed.

It is a good idea to obtain guidance from the local authorities on the conditions that will be imposed, the information that must be provided in order for the event to be authorised, and the deadlines for submitting applications and information to the various authorities. The organiser should expect the authorities to request information such as calculations, drawings, plans, etc. so that they can grant permission on an informed basis.

Finally, it is a good idea for the organiser to appoint a specific person within the organisation to liaise with the authorities in order to ensure good and close contact with the authorities during the planning and running of the event.

1.3 Organisation of safety measures

When planning and running an event, the organiser must organise safety measures for everyone who has access to the event site.

Organisation involves assigning responsibility and ensuring that the necessary skills are available, for example in the form of education, training, experience, professional knowledge or similar. Organisation should also include monitoring safety efforts, formalising necessary cooperation forums and ensuring the necessary communication.

1.4 Safety planning

Safety considerations must be included in the planning of a number of different aspects of an event. It will often be necessary to have separate and detailed plans for the individual parts of the event (sub-plans).

> **Example**
>
> Even before contacting an artist for the first time to discuss a possible performance, the organiser should have considered the expected behaviour of the artist and the audience and the resources (e.g. in terms of personnel) required to ensure a safe concert.

In order to obtain an overview of all planning aspects, the organiser should draw up an overall safety plan that includes the individual sub-plans for the event.

On 3 February 2015, the Danish National Police issued guidelines on the preparation of security plans for large outdoor music events and similar events. The guidelines introduce the term "security plan" as a collective term for the information that organisers of large outdoor music events and similar events must provide to the police for use in processing applications for permits under the Entertainment Order. The safety plan may also be sent to other authorities (municipalities, emergency services and regional pre-hospital services) or others who are required to issue permits or be informed about the event. The guidelines are available on the police website or via this link: Guidelines on preparing safety plans for large outdoor music events and similar events.

It will often be necessary to adjust the safety plan on an ongoing basis, including the risk assessment and emergency response plan mentioned below. The organiser should therefore ensure that employees and partners are informed of any changes.

The safety plan can be used for a number of events if these events are broadly similar and are organised by the same organiser. However, local adjustments to the plan will typically be necessary to take account of the specific circumstances of each individual event.

Example:

If a series of concerts with the same artists is to be held in different locations around the country, a safety plan can be drawn up for the entire concert series, as the behaviour of the audience and the artists is expected to be relatively similar at all concerts. However, the plan must be adjusted for each concert depending on, for example, the conditions at the individual venue and the experience gained from the concerts already held in the series.

If an event takes place at a permanent concert venue or stadium, the organiser must coordinate their plan with the existing security measures for that venue.

A safety plan consists of three parts, which together form the safety plan:

1.4.1 Description of the event

All relevant facts about the event, including time, place, type of event, target audience and expected audience size, the venue and its layout, any camping areas, fire safety, traffic conditions, communication, etc. should be described. There should also be a description of how many audience members are expected at different times.

1.4.2 Risk assessment

The risk assessment is the result of a risk identification and analysis. It describes the risks identified for the event and the safety measures to be implemented to reduce the likelihood and/or consequences of an incident occurring.

1.4.3 Contingency plan

An emergency response plan is a plan for handling incidents. The emergency response plan must ensure that the organiser's emergency response units quickly and effectively remedy and limit any incidents that may occur in connection with the event at the normal emergency response level (everyday incidents). In addition, the organiser's contingency plan for the event must ensure an effective initial response in the event of major incidents/accidents (extraordinary incidents) until the authorities' emergency services arrive.

With regard to the security plan, reference is made to the "Guidelines for the preparation of security plans for major outdoor music events and similar events", which were sent to the Ministry of Justice and the Ministry of Culture's monitoring group on security at outdoor music events by the National Police on 3 February 2015.

1.5 Phases of the event

As the organiser, it would be a good idea to think about the event in different phases.

1) Preparation
2) Set-up

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3) Execution
4) Dismantling
5) Evaluation

1.5.1 Phase 1: Preparation and initial planning

In order to limit potential risks during the construction and layout of the event venue, the organiser must ensure that safety is taken into account from the outset of the planning process.
The preparation phase includes the event infrastructure, construction, obtaining permits, taking out insurance, selecting competent staff, selecting partners, suppliers and subcontractors, contacting authorities, etc.

Planning may include the location of stages, barriers, sound towers, entrances and exits, emergency exits, first aid areas, the location of toilets and other sanitary facilities, the layout of sales stalls, camping and parking areas, etc.

Example:

If toilets and bathing facilities with access to running water are to be set up, it is important that the supplier knows where the water connection and sewerage system are located in the area. This should be clarified early in the planning stage.

It may be necessary to obtain floor plans of the existing premises where the event is to take place. To ensure the correct placement of the various structures for the event, it may also be necessary for the floor plans to be made available to the suppliers responsible for setting up the infrastructure.

The planning also includes ensuring that stages and other structures are designed so that they can be erected and used in a safe manner. Descriptions, drawings, calculations and certifications regarding the construction of the stages, audience areas and other structures must therefore be obtained or prepared.

These documents will typically also be relevant when the organiser applies for permits for the event from the authorities, and they will be included in the authorities' planning of their efforts in connection with the event.

The planning should include which permits must be obtained from the various authorities and what information must be available in order for the organiser to submit a complete application. The organiser must also be aware of the requirement for liability insurance and occupational injury insurance, and whether other insurance policies need to be taken out in connection with the event.

The organiser should seek information from the relevant police district as early as possible in the preparation process regarding the need for anti-terrorism measures.

In addition, the arrival of suppliers, for example, should be planned and agreed so that their activities at the event venue are coordinated with other activities.

Early on in the planning process, the organiser should consider how staff will be selected and assigned (e.g. experienced staff alongside less experienced staff) and whether they will need training or instruction before the event.

1.5.2 Phase 2: Planning the set-up

In relation to the layout and establishment of the event site, plans must be made for how the infrastructure and structures can be set up safely and how sound towers, stages, grandstands, tents, etc. are to be constructed so that they are safe throughout the event.

The construction phase covers the event area, including stages and the area around the stages, camping and parking areas.

Plans must be made for how equipment is to be transported to the event site and installed in or on the event site areas and structures.

Setting up stages, sound and lighting equipment, fences and barriers, etc. typically involves lifting heavy equipment, which may need to be hoisted up into towers or similar structures. It will therefore be necessary to establish safety rules for the event site. Read more about the working environment in Chapter 8.

Weather conditions have had a major impact on the running of events in recent years, and the consequences of extreme weather conditions should therefore also be taken into account in the initial planning phase. Read more about weather conditions in Chapter 10.

Example

A stage must be able to support several tonnes of equipment, and stages, sound towers and large screens must be constructed in such a way that they can withstand strong winds and rain and that the audience cannot climb on them.

1.5.3 Phase 3: Planning the event

Planning the event includes managing crowds before, during and after the event, and sanitary conditions such as emptying toilets, using and disposing of any flammable materials, and dealing with things like fires, first aid, unexpected incidents and emergencies.

Good and effective communication can help in many situations, and it is therefore important that the organiser also considers how to inform relevant target groups about conditions and any changes along the way when planning the event. Read more about information and communication in Chapter 13.

The successful staging of an event requires good cooperation between all parties involved. The organiser may therefore need to seek assistance and advice from, for example, other

organisers, professional experts, the police, pre-hospital emergency services, health authorities, relevant municipal authorities, other authorities and suppliers.

1.5.4 Phase 4: Planning the dismantling

The dismantling phase is about what needs to be done when the event is over and the audience has left the site, which must then be cleared and restored. Clearance will typically include dismantling stages, removing equipment, removing fences and barriers, collecting waste and disposing of waste water, as well as cleaning up and restoring the event site.

The dismantling of stages, tents and stalls must be planned so that they can be safely dismantled and then removed from the event site in a safe and controlled manner. It will often be appropriate for the same safety rules that are laid down for the event site during construction to also apply to dismantling during this final phase of the event.

The planning of the dismantling should cover the entire process until the final clearance of the event site is completed.

1.5.5 Phase 5: Evaluation of the event

An evaluation of the entire event should always be carried out immediately after it has ended. See Chapter 16 on Evaluation and exercises for more information.

1.6 Security personnel

A large event will require a significant number of staff to perform the many functions associated with the event, including security personnel.

It is a good idea to appoint a security manager who, on behalf of the organisers, has overall responsibility for security and safety, including planning, management during the event, dialogue with the authorities and compliance with laws and regulations.

Security personnel can be divided into two main types:

- Security personnel
- Safety personnel

The term "security" covers a range of functions, of which "safety" and "security" are the most common. Therefore, "security personnel" is used in this guide as a collective term for the above functions.

The number, location and organisation of staff will depend on the size and nature of the event and, in the case of security personnel, also on the risk assessment carried out prior to the event.

The main task of safety personnel is to create a safe environment, ensure safety, assist and guide the audience, and assist the police, emergency services and others if necessary. Based on the safety plan, safety personnel should be positioned in

key positions, typically among the audience in front of the stage, at barrier areas at entrances and exits, and, for example, as observers at mixing or delay towers and other areas where there are large numbers of people or important installations.

Security personnel can contribute to awareness and caution in connection with suspicious behaviour. By increasing awareness of behaviour that deviates from the norm, they can help prevent vandalism and, in extreme cases, terrorist attacks. You can read more and find guidance on terrorism prevention on the PET website.

Security personnel can perform safety-related tasks, but due to legal requirements regarding training, approval/authorisation, etc. for some security personnel, safety personnel cannot, as a rule, perform security-related tasks. Although safety personnel are not subject to legal requirements, they perform a highly specialised task that requires knowledge of crowd control. It is therefore appropriate to maintain a clear distinction between the different types of security personnel.

When organising security, it must be ensured that each employee has the necessary skills for their tasks and responsibilities through training and experience. This can be done by registering the tasks and skills of each employee.

1.6.1 Specific to security personnel

Security personnel – perform tasks with a focus on peace, order and security at fenced-off events. Pursuant to the Executive Order on Public Entertainment, the police may lay down conditions for the staging of concerts, including requirements for competent and trained security personnel.

Security personnel act in the same way as other private citizens within the framework of the Criminal Code, including the rules on civil arrest, searching (must have consent to search) and acting in self-defence, and thus, unlike the police, do not have special powers. Approved security guards, authorised door staff and specially trained personnel may all be included as security personnel.

Security personnel includes the following subgroups, which are covered by legislation.

Guards – ensure the security of valuables, e.g. equipment and stages, when they are not in use. Guards may also provide access control for the purpose of protecting valuables, e.g. night guards or during construction. The provision of professional security services is covered by the Security Services Act, and the company must therefore be authorised to perform these functions, and security guards must be approved by the police. In general, commercial security services may not be provided in places where there is general access. This requires a separate permit. Approved security guards may perform the duties of doormen without any other authorisation.

Non-commercial security guards may, for example, be volunteers or the organiser's own security guards, and these are not subject to the requirements of the Security Services Act regarding authorisation/approval, but see below regarding the organiser's own security guards.

Doormen – typically handle access control at restaurants and bars. They check guests' age, clothing, intoxication, possible possession of weapons and any known troublemakers.

Doormen are covered by the Restaurant Act and the Doorman Order, and each doorman must be authorised in the form of a doorman card. Doormen may not engage in professional security work, but with their training they may be involved in the tasks of security personnel.

As mentioned, security personnel are responsible for maintaining peace and order at the event. The organisational location and reference of security personnel should be specified in the description of the organiser's security organisation. The organiser must also describe how the personnel are organised and activated in connection with the event. The number, level of competence and uniforms of security personnel must be described in detail. It should be noted that there are special requirements for the uniforms of approved security guards and authorised door staff.

In relation to the police permit for the event, the police focus primarily on security personnel, as these employees must in certain cases meet specific requirements regarding educational background. In connection with the permit for the event, the police may require that approved security guards, authorised door staff or personnel with equivalent skills (own security guards) be used as security personnel and specify the number thereof.

It is important that the organiser is aware of which tasks among the security personnel require authorisation. For example, supervision of areas in connection with night shifts during set-up or other periods when equipment is left unattended typically requires affiliation with an authorised security company in accordance with the Security Services Act. The use of your own security guards is not covered by this requirement. In such cases, however, the work must be carried out by the organiser's own staff.

In certain cases, the task of ensuring the safety of the audience and guests can also be performed through training as, for example, an event security guard (offered by Dansk Live), authorisation as an inspector at certain sporting events (offered by Divisionsforeningen) or other training with relevant content.

It is up to the police district to assess what skills are sufficient in each specific case.

If the organiser uses unauthorised security personnel (own guards), i.e. unapproved guards or unauthorised doormen, documentation must be enclosed with the application for a permit to the police to show that the persons in question have undergone training that qualifies them to perform the task.

A list of all security personnel's CPR numbers and their consent for the police to obtain information about them from police records must also be enclosed. This is so that the police can check that the persons in question are not registered for illegal activities that are clearly incompatible with the tasks they are to perform as security personnel.

Please note that, according to the Executive Order on Security Services, security guards' uniforms must not be confused with police uniforms and must clearly display the word 'VAGT' (security guard).

1.6.2 Special provisions for safety personnel

Safety personnel – responsible for safety in relation to the general risks associated with a major event, including crowd control, front stage safety, patrolling to assess and manage the mood and density of the audience, caring for and reassuring the audience, responding to accidents, access instructions, e.g. access to backstage areas, etc.

The term 'safety personnel' can be used to refer to *service personnel* who perform tasks such as ticket inspection, seating and access instructions, and guiding the audience and guests on their way.

Service personnel are therefore part of the safety personnel.

Safety personnel may be organised together with security personnel and wear the same uniform, e.g. the same type of reflective vests, but the two functions must not be confused, which is why it is advantageous for them to have their own uniforms – possibly with a clear indication of their function on the vest. Safety personnel perform tasks with a focus on observation, care and safety for the participants of the event, but they do not have the same mandate to maintain peace and order, which is the sole responsibility of security personnel due to their special competence requirements.

Security personnel may, in line with safety personnel, perform care and safety tasks where no special requirements for training, etc. are imposed, but not vice versa.

Safety personnel play a key role in observing and guiding people at the venue, e.g. as fire or warning guards or specifically as crowd safety personnel who, with their service and understanding of the audience's interests and dynamics during the concert, can counteract inappropriate behaviour. See more about this in Appendix 1.

1.6.3 General information about the responsibilities and competencies of security personnel

In general, everyone who performs security tasks in connection with an event must be carefully instructed about their tasks and responsibilities, including in relation to other employees. Security personnel are subject to the general requirements of the Working Environment Act regarding competence and training.

The responsibilities and competencies of security personnel should generally include, among other things:

- Understanding of each individual function's general responsibilities with regard to the safety of all categories of audience members (including audience members with special needs), other staff, other event personnel, partners and themselves
- Knowledge of the layout of the event venue
- Knowledge of front stage work and potential hazards among the audience
- Contributing to the safe running of the event by, for example, keeping entrances and exits clear at all times and ensuring that audience members show consideration for each other

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- Confidentiality with the event and communication structure and the communication channels that apply, both during operation and in emergencies.

The following requirements should generally apply to all security personnel:

- That they are at least 18 years of age (legal requirement for approved security guards and authorised door staff)
- That they are responsible and, for example, never leave their position without permission (and replacement)
- During or prior to a shift, they must never consume alcohol or anything else that may impair their ability to perform their duties
- That they are familiar with and have immediate access to the applicable security plan.

When putting together the security team, the organiser should make sure that, as far as possible, less experienced staff work alongside more experienced staff.

The organiser should also ensure that security personnel receive written instructions for their tasks and, if relevant, a checklist. As the organiser, you should ensure that the instructions have been distributed, read and understood by having the employees in question sign for them.

With regard to searches in particular, this task is not limited to security personnel. Searches with consent may, in principle, be carried out by anyone, but, like everything else, should be a trained task, not least because it involves entering the guests' personal space.

Security personnel should be adequately trained in their tasks so that the tasks are incorporated into their routines. The organiser should also consider the possibility of equipping persons – e.g. certain key persons – with a map or similar of the layout of the event venue, indicating, for example, zone divisions and/or fixed points, telephone numbers, etc. and information on where instructions can be found.

It is a good idea to hold exercises of varying scope and content to ensure that security personnel in all functions are familiar with the tasks they are to perform. See more about this in Chapter 16 on Evaluation and exercises.

1.7 Planning meetings

For larger events, it will typically be necessary to hold internal planning meetings. Such meetings are a good way of ensuring that key members of the event's security personnel are familiar with the content of the security plan, including any changes and the latest versions. It is not necessary for all security personnel to have access to the security plan, but they must know their role in it and be informed of any changes. The meetings can also be used to systematically discuss current security issues and refine the risk assessment.

The frequency of planning meetings depends on the nature of the event. Depending on the size of the event, it is also recommended to arrange a series of planning meetings between the organiser and relevant authorities, including the police, pre-hospital emergency services, rescue services, etc., regarding the security plan.

1.8 Information management and overview of the situation

When planning security for an event, the organiser should continuously monitor developments in security conditions and ensure that significant changes are reassessed in accordance with the risk assessment and updated in the security plan.

The organiser should ensure the maintenance and improvement of security measures by obtaining and compiling information about security conditions and the situation surrounding the event in general. Information management should not be confused with the information addressed to the public (see Chapter 13), but is a tool for the security organisation and can be ensured by establishing:

- Proactive information management
- Reactive information management

Proactive information management provides information about safety measures before an accident or incident occurs. Proactive information management may include inspections of the safety status of the event site during set-up and dismantling, as well as during the event. The organiser – or a designated safety officer – can, for example, regularly check that employees know how to act in the event of an incident.

Appropriate inspections and investigations should also be carried out to ensure that all buildings, installations and equipment – whether temporary or permanent – are suitable and safe for their intended use. Proactive information management can also be used to detect

trends or patterns in audience behaviour (illness, drug dealing, confrontations, theft, etc.) that security personnel can act on.

In addition to inspection and supervision, the ability of security personnel to observe and report should be used proactively.

Reactive information management is initiated after, for example, an accident or incident. This may involve identifying and reporting damage and other losses, such as destruction of property, incidents involving risk of injury, and weaknesses or omissions in safety. If a front barrier falls over, it must be investigated why it fell over, whether anyone was injured and what needs to be done immediately to prevent other barriers from falling over. When reporting, it is important to focus on where the reports come from.

All information that emerges in connection with information management should be documented. This documentation may be crucial, for example, in relation to subsequent evaluation and review of the event, or to create an overview of the situation in the event of an incident that requires prioritisation of resources. The organiser must ensure that tasks relating to information management and overview are handled by qualified personnel and that the performance of these security tasks is documented.

1.9 Evaluation of security

As a natural part of safety work, all relevant aspects of safety efforts, including planning, implementation and exercises, should be evaluated in order to identify deficiencies and unintended incidents and to identify learning points for implementation. See also Chapter 16 on evaluation and exercises.

2.0 Risk assessment

This chapter covers the following topics:

- **Purpose of a risk assessment**
- **The ISO 31000 model**

2.1 The purpose of a risk assessment

The risk assessment must ensure that, as part of the planning of the event, the risks associated with the event are identified and addressed so that the event poses the least possible safety risk during its execution.

The identified risks must be analysed by describing the reason why the situation may arise, how likely it is to occur, which parts of the organisation may be affected and how serious the situation could be.

Example of risk assessment:

Could something dangerous happen at the entrances to an event? What could be damaged in such a case – people, fences or other property – and how serious could the damage be? What safety measures (both preventive and remedial) can we implement to counter these risks, and how extensive are these measures?

Once all relevant risks have been identified and analysed, they can be entered into a table or matrix, providing a visual overview of the event's overall risk profile and whether there are any risks that still need to be addressed.

The risk assessment of an event covers all significant aspects of the event and must be continuously adapted in light of the overall planning of the event.

A risk assessment does not necessarily have to be carried out in the manner described above, but it is important to use a systematic approach to risk assessment. Several organisations have benefited from the ISO 31000 standard on "Enterprise Risk Management" (DS/ISO 31000) and use it as a framework for their risk management work. However, it is not a requirement that this method be used.

2.2 The ISO 31000 model

Risk is defined in ISO 31000:2018 as:

Probability (of an event occurring) x consequence (of that event occurring) = Risk (factor).

See more about this under Phase 2: Risk analysis

According to the ISO 31000 model, the preparation of the risk assessment is divided into three phases: Phase 1: Risk identification
Phase 2: Risk analysis
Phase 3: Risk evaluation

2.2.1 Phase 1: Risk identification

The organiser must identify all relevant risks for the event. When identifying the elements, situations and incidents that may affect the safety of the event, it is essential to involve middle managers and assistants who have in-depth knowledge of the event.

An effective way to do this is to gather all relevant stakeholders to discuss their experiences from previous or similar events. A brainstorming session can be used to identify all the risks that participants can think of.

The disadvantage of this identification process is that you risk ending up with many risks that are more or less similar. It is therefore very important to group the identified risks into general topics, which you then analyse.

Examples of consequences if the risk occurs:

Description	Value
No action required	1
First aid required	2
Hospital/emergency room treatment	3
Life-saving first aid	4
Death	5

Identification of scenarios involving special risks

Certain scenarios involve specific risks that must be taken into account. For example, areas and activities associated with the event may be targeted by terrorist attacks. Read more in PET's guide *Think about terrorism security at major events,* which can be found on PET's website, and talk to your local police about the threat assessment and any security needs.

2.2.2 Phase 2: Risk analysis

The risk analysis begins with a description of the identified risk. The risk should be described briefly and precisely. The probability and consequence of the risk occurring are then determined. It is recommended that a numerical value be assigned to both probability and consequence. When the two factors are multiplied together, the result is a risk factor, which is an expression of the danger posed by the risk.

Probability of the risk occurring:

Designation	%	Value
Highly unlikely	< 10	1
Unlikely	11	2
Possible	25	3
Likely	75	4
Most likely	> 90	5

The risk factor can be specified in a risk matrix during the final phase: risk assessment.

The following parameters can be used:
The risk factor is assessed twice: both before and after implementation of the risk-reducing safety measures. The risk-reducing safety measures are the measures implemented to prevent and mitigate the risk.

The "before" risk factor – or "worst-case scenario" – indicates the level of risk without taking into account the risk-reducing effect of the safety measures. After describing the safety measures that are implemented, a new risk analysis is carried out. This "after" risk analysis naturally assumes that the specified safety measures are actually implemented.

2.2.3 Phase 3: Risk evaluation

Once all relevant risks have been identified and analysed, the analysed risks can be compiled in a risk matrix, which provides the authorities with a quick overview of the event's risk profile.

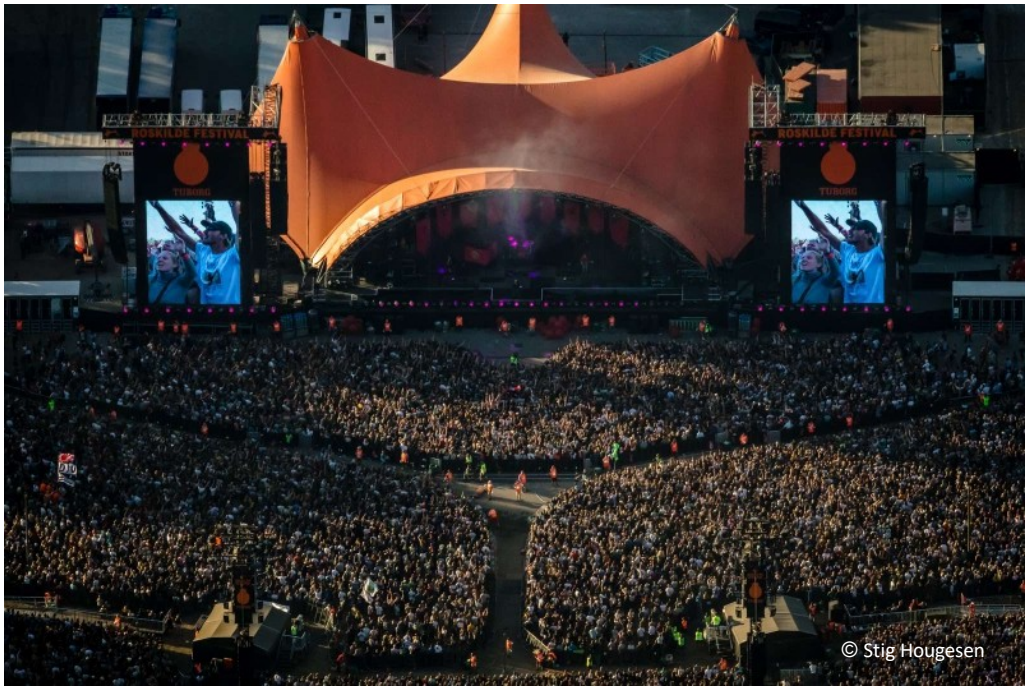
All the analysed risks are entered into a risk matrix with the value they have been assigned in the analysis after the safety measures have been implemented. Once all risks have been entered, you will have an overview of the risk profile for the event.

It is important that the organiser states in their risk assessment whether and why they consider the overall risk profile of the event to be 'low', 'medium' or 'high'.
When planning and running the event, the organiser must regularly review the assessments made and revise them if new information or circumstances mean that the assessments no longer provide an adequate basis for the safety measures. This could be, for example:

- Major changes to the area, e.g. the inability to use grass-covered parking areas that are under water or mud after heavy rainfall or similar
- Significant changes to the event, e.g. programme changes or new activities
- Incidents in which members of the audience or staff have been injured or could have been injured. This could be the case, for example, if the behaviour of the audience proves to be significantly different than expected
- Incidents at other comparable events where the incidents give rise to a reassessment of your own practices

Examples and further information on risk assessments can be found in the Danish National Police's *"Guidelines for preparing safety plans for large outdoor music events and similar events*".

3.0 Layout of the event venue



This chapter covers the following topics:

- General considerations for the layout of the event venue **LayoutError! Reference source not found.**
- Layout of the event venue
- Police, emergency services and pre-hospital emergency services
- Employees and special guests/VIPs
- Noise
- Catering and merchandise sales
- Surrounding fencing
- Barrier requirements in front of the stage
- Signs and information points
- Sanitary facilities
- Final layout

3.1 General considerations for the layout of the event venue

The layout of the event venue is an essential part of ensuring safety during an event. The event venue includes both the areas and facilities accessible to the public and the backstage areas. This means that all areas involved in the event must be taken into account when designing the layout of the event venue.

It is important that the organiser of an outdoor event demarcates the area of the event. There is no requirement for a physical boundary such as fencing, but only that the area is demarcated. It is important that all staff are familiar with this demarcation so that all requirements and operational measures are complied with.

The organiser must also define what is covered by the building regulations, as there may be different requirements depending on the rules that apply.

When setting up an event venue, an area must be created where the audience can enjoy the event safely and comfortably and where employees can help to ensure this experience for the audience. If the area is covered by building regulations, please refer to chapters 4, 5 and 6.

See also Appendix 9 Assessment of the suitability of the event venue.

3.2 Layout of the event venue

3.2.1 Capacity of the event venue

The capacity of the event venue – i.e. how many people it can accommodate – generally depends on how much space there is for the audience, artists and staff, the capacity of the entrances and exits, and the emergency exits and escape routes.

Often, parts of the venue will need to be set up and used for temporary and transportable buildings/tents of various kinds, including sales booths, restaurants, storage rooms, sanitary facilities and other facilities.

It must also be considered whether the entire audience of the event should be able to attend the concert(s) at the same time. If there are areas where the audience cannot see the stage(s), this area should be deducted from the available space.

The organiser should also consider whether there are areas that can provide partial or complete shelter for the audience in the event of heavy rain or wind. The consequences of the audience seeking shelter in these areas must be taken into account when considering the layout, capacity and safety of the venue. The site in question must be suitable for use by large numbers of people at the same time and for unstable weather conditions, and it must be securely anchored.

As part of the considerations regarding the capacity of the event venue, it must be assessed where personnel are needed to manage the crowd in a considerate and responsible manner – both under normal conditions and in emergency situations.

For events with seating, the number of seats, together with the capacity of entrances and exits, emergency exits and escape routes, will determine how many people the area and venue can accommodate.

In other cases, a calculation should be based on the acceptable human density. Generally, 2 people per m^2 (calculated for each section) are calculated for music events. For other parts of the event site, such as shopping areas and camping areas, there should be more space.

The capacity of the event site must also be assessed based on whether the audience can be evacuated at an appropriate speed. The number and size of the available rescue and escape routes must be sufficient to enable the crowd to be quickly moved to another location either inside or outside the event site in the event of an emergency at one location on the event site.

Reference is also made to *the Building Regulations' guidance on Chapter 5 – Fire, Appendix 11: Guidance on outdoor events, sales areas, temporary installations, temporary accommodation and transportable structures.*

3.2.2 Access routes to the event site

Access routes must be able to cope with the expected peak loads. The organiser must assess when, how and from where the audience will arrive and leave the site, and whether this will happen over a longer period or all at once.

Access routes may be routed to different parts of the event site to limit peak loads and congestion. All routes should be clear, simple, easy to follow, direct and avoid crossing and merging flows of people, vehicles, etc.

3.2.3 Entrances

The entrances must enable the audience to be guided to the event in a safe manner, and any queuing system should be carefully planned and designed. It will usually be necessary to establish separate entrances for artists, staff, audience members, suppliers, emergency personnel, etc.

Consideration should also be given to whether special entrances should be established for persons with disabilities, and accessibility in general should be taken into account in the design of the event venue. The layout and location of the entrances must be assessed on the basis of the required entrance capacity. In established concert areas, the entrances have usually already been assessed and approved for a specific number of people. This should be assessed in relation to the current event.

The speed of the flow of people depends on the type and layout of the entrance, including the width of the entrances, and whether there are security checks, bag searches and access passes (wristbands, tickets or similar). The weather will also be a factor.

It is important to have clear signage with clear instructions at entrances. Efforts should be made to ensure that signs are illuminated in the dark if necessary and that the message on the signs is clearly understandable in all relevant languages. Areas around entrances and exits should be kept free of traffic and unloading. Similarly

areas around entrances should be kept free of sales or deposit booths, music, performances and similar activities so that congestion does not occur. Reference is also made to Chapter 14 on the importance of access conditions and access policy for audience behaviour.

3.2.4 Exits, emergency exits and escape routes

The necessary capacity of the exits from an event venue must be assessed in relation to the capacity of the venue to ensure that the area can be cleared of people within a reasonable time. For outdoor events with camping and sales areas, it must be ensured that all persons can quickly move to a safe place where they will not be directly affected by a sudden incident. Fixed evacuation times can be used in planning and drills. If it's practical, separate exits should be set up for pedestrians and vehicles. You should also think about setting up special exits for people with disabilities.

Any fencing off of a sales area must not impede evacuation and must therefore be carried out in such a way that safe evacuation can always take place.

Exits that form part of escape routes must be visible and clearly marked, e.g. by means of large signs – illuminated in the dark – with easily legible text or pictograms in the relevant languages. If the area in question is covered by building regulations, requirements and guidance can be found in Chapter 5 of the Building Regulations and in *the Building Regulations' guidance to Chapter 5 – Fire, Appendix 11: Guidance on outdoor events, sales areas, temporary installations, temporary accommodation and transportable structures.*

The number and location of escape route signs must be adapted to the venue so that the public can quickly find their way to the escape routes.

In this connection, it must be ensured that the signs are legible in relation to the distance from which they are to be seen. The size of escape route signs can be calculated using the following formula:

Reading distance= e H x Z

H is the height of the
sign Z is constant:
100 for externally illuminated signs/pictograms

200 for internally illuminated signs/pictograms

Example: A pictogram is 15.5 cm high and internally illuminated.
The reading distance will be 15.5 cm x 200 = 3100 cm= 31 m

Exit doors (including doors to escape routes) must open outwards and must function correctly and effectively. There must be no obstacles at the sides of exits and escape routes. Exits and escape routes should also be kept free of other traffic, sales, performances and similar activities. The location of the outermost exits from the event site to public areas should be carefully considered. Exits should lead to an open area to a gathering place or similar with space for many people.

3.2.5 Sight lines and dispersal of the audience

It is important that the audience has a wide line of sight to the stages to avoid people moving too far forward and towards the centre in front of a stage. This helps to reduce crowd density in front of the stage and limits the risk of people being injured or frightened. Therefore, consideration should be given to designing the sightlines in such a way that areas with optimal visibility from the sides of the stage are created. Consideration should be given to whether sales activities should take place in the audience in front of the stages, as this can reduce the audience's visibility and create conflicts between listeners and shoppers.

Consideration could be given to establishing standing or seated grandstands at the rear or at the sides of the audience area, thereby expanding the attractive audience area. In this case, it is important to ensure good sound coverage of such areas, possibly by means of delay sound. Consideration should be given to establishing spectator seating so that wheelchair users, for example, are ensured a good view of the stages. In this connection, it must also be ensured that wheelchairs do not inadvertently block entrances, exits or aisles.

3.2.6 Towers (observation structures), mobile antennas, loudspeaker towers, portals, signs, etc.

Requirements and guidelines for the erection of lighting and sound towers, tents, grandstands, observation towers, signs and similar structures are set out in the Building Regulations (BR18), *The Building Regulations' guidelines on the installation of transportable structures, including tents, grandstands, stages, exhibition stands, portals, towers, etc.*, and *the Building Regulations' guidelines on structural conditions for transportable structures.*

Transportable structures must be supported, anchored and founded in such a way as to ensure their stability. In some cases, the foundation may be provided by base plates laid on a level, solid surface. In addition, portable structures must be screened off to the extent necessary to protect them from moving crowds. This must therefore be taken into account when planning the layout of the site.

3.2.7 Large screens

Requirements and guidelines for setting up large screens, light and sound towers, tents, grandstands, observation towers, signs and similar structures are set out in the Building Regulations (BR18), *the Building Regulations' guidelines on the erection of portable structures, including tents, grandstands, stages, exhibition stands, portals, towers, etc.*, and *the Building Regulations' guidelines on construction requirements for portable structures.* With large crowds, the large distances between the stage and the rear of the audience area result in reduced visibility and

sound quality and thus a reduced entertainment value. This can lead to movement towards the stage and thus to crowding in front of the stage.

This can be counteracted by setting up large screens. Screens placed at a certain distance from the stage encourage part of the audience to use the less crowded part of the venue, where they still have a good view of the screens. Screens near the stage can also help to keep people at a certain distance from the stage. Screens next to the stage can also spread the audience out to the sides, thereby reducing crowding immediately in front of and in the middle of the stage.

Large screens must be supported, anchored and grounded to ensure their stability in accordance with building regulations. In some cases, this can be achieved by using base plates laid on a level, solid surface. In addition, large screens must be shielded to protect them from moving crowds. This must therefore be taken into account when planning the layout of the venue. Not all screens work well in daylight, so if you want to use a screen during the day, you must ensure that it functions properly. It is important that the placement and design of screens do not obstruct the audience's view.

3.2.8 Slopes

If there are slopes at the event site, their impact – in both wet and dry weather – must be carefully considered. It may be necessary to consider purchasing stairs or ramps made of a material that has a non-slip surface in all weather conditions. The area in front of a stage should always be flat to prevent people from tripping, crowding or being pushed towards the stage.

3.2.9 Observation points

Observation points may be necessary to ensure that security personnel have an adequate overview of the crowd. This makes it possible to detect any accidents or incidents that may require intervention by event staff, medical personnel or others. These observation points may, for example, be located on the stage, in sound or lighting towers, in mixing towers or other structures, or on the ground among the audience.

In all cases, it is important to ensure that the audience's view of the stage is not unnecessarily obstructed and that the observation structures in question comply with the safety regulations in the building regulations.

Observers at observation points should be equipped with telephones or radios so that messages can be relayed quickly and efficiently. If facilities are set up in structures, they must comply with the provisions of the building regulations.

3.2.10 Facilities behind the stages

The need for facilities behind the stage will depend on the event. Typically, space must be provided for production offices, refreshment facilities for artists and stage crew, changing rooms, storage space, equipment, etc. When planning these facilities, consideration must also be given to fire hazards, access routes, the location of generators, medical and first aid facilities, ambulances and the needs of the emergency services and police.

It will often be appropriate to separate the artists' area from the production and work areas, but in any case, efforts should generally be made to keep the backstage area as a workplace for stage, production and artists.

3.3 Police, emergency services and pre-hospital emergency services

The organiser is responsible for ensuring the necessary number of security personnel based on the risk assessment and the practical plans for the event.

The layout of the event site must take into account requirements from the authorities regarding, for example, parking areas, camping areas and first aid stations, meeting points, escape and rescue routes, assembly points for injured persons (treatment areas), emergency exits, escape routes, etc. The event site must be designed so that these locations are easy to access and identify. In addition, in special cases, the emergency services may require measures to prevent or reduce fire hazards and ensure adequate response capabilities.

The site must be designed so that the emergency services can safely access the necessary vehicles and fire-fighting equipment, regardless of where the accident occurs. In general, special rescue routes/ambulance routes must be established and kept clear throughout the event, and separate entrance and exit gates may be required that are of sufficient height and width to allow fire engines and ambulances to pass through. Fire lanes must be passable so that emergency services vehicles can get through.

The number and location of security personnel and the presence of the police, among others, will depend on the event. The authorities will assess the extent of the response based on, among other things, the nature of the event, experience from previous or similar events, and the organiser's risk analysis and safety assessment. The police will assess whether they need to provide personnel and, if so, how many and where they should be stationed. The fire safety requirements are set out in Chapter 5 of the Building Regulations and in *the Building Regulations' guidance on Chapter 5 – Fire, Appendix 11: Guidance on outdoor events, sales areas, temporary installations, temporary accommodation and transportable structures*.

3.4 Employees and special guests/VIPs

For large events, there will need to be a significant number of employees at the event venue. These employees will need their own facilities, which will be located in a designated area or distributed between backstage areas and/or the main area.

In addition to the general public, an event will often have a number of specially invited guests/VIPs. The number of such guests will vary depending on the nature and size of the event. Depending on the number of special guests and the desired level of service, space and catering for several thousand people may need to be provided.

It is important to take staff and special guests into account in the overall assessment of the event's capacity, including, for example, in connection with emergency exits and escape routes.

3.5 Noise

The layout of the venue should aim to provide the best possible music experience, but at the same time protect any neighbours from noise nuisance. The location of stages and other sound sources in relation to, for example,

Institutions, residential areas and other noise-sensitive areas in the vicinity must therefore be taken into consideration and, if necessary, agreed with the local authority. The topography of the event site should be included in these considerations.

For events with large audiences, it may be advantageous to use a delay sound system so that the sound is distributed evenly across the audience area in front of the stage(s). The location of delay towers should be carefully considered in relation to the overall sound image, the audience's lines of sight and whether the location poses a risk of the audience being pushed up against the towers. It should also be taken into account that the audience must not be able to climb the towers to improve their view of the stage.

3.6 Catering and merchandise sales

Restaurants and bars are considered places of assembly and may be subject to building regulations. Organisers should be aware of space allocation plans, etc. in large tents used for this purpose.

Restaurants, bars and other places where food and beverages are sold, as well as other sales stalls, should be located in areas where large crowds are not expected. They should therefore not be located near stages, entrance or exit routes, for example.

It should also be taken into account that some stalls may pose a particular fire risk, e.g. due to the use of F-gases. Reference is also made to Chapter 6 on fire safety and Chapter 11 on installations.

In connection with restaurants, bars and other sales outlets in the event area, plans must also be made for electricity supply, water, drainage, toilet and kitchen facilities, renovation and waste disposal, and space for storage of goods, etc.

3.7 Surrounding fencing

Whether it is necessary to fence off the event site depends, among other things, on the type and nature of the event and the location of the event site.

Fencing may be necessary to prevent unauthorised persons from gaining access to the event site and to enable the event to be organised and managed in a safe manner, including regulating the number of participants in relation to the capacity of the event site.

For some events, markings in the form of signs or staff are sufficient, while for other events, an outer fence is necessary. If there is a risk that people will gain access through a fence that has been erected, and where this poses a safety risk to people if they gain access despite the fence, consideration should be given to whether more robust barriers are necessary. These could be fences for motorways or railways.

For multi-day events, it must be assessed whether an outer area should be established – reserved for temporary camping – surrounded by fences and an inner area where the music takes place. This will allow for double checking of the audience by counting and checking admission tickets both at the entrance to the temporary camping area and to the music area. In this case, it should be ensured that there are enough gates between the two areas to avoid queues. When planning the design of the fence, necessary escape routes, etc. must be taken into account.

3.8 Barrier requirements in front of the stage

Barriers in front of stages may be necessary, especially if large crowds are expected. For most large music events, some form of barrier or front zone in front of the stage is necessary. Read more in Chapter 4 *Fences and barriers*.

3.9 Signs and information points

The rules for putting up signs related to fire safety are in the building regulations (BR18).

For permanent events, there is usually stationary signage for emergency exits, fire extinguishing equipment, entrances and exits, parking areas, areas reserved for ambulances, fire engines, etc. For other events, signage in the corresponding locations is just as important and will usually have to be provided by the organiser.

Effective use of signs is a quick way to provide orientation, guidance and information. Signage is therefore helpful in ensuring the safe running of the event and in the event of an emergency. Signs should be clear and easy to understand. If the event takes place in the evening or at night, adequate lighting should be provided. Efforts should be made to ensure that the signs can be understood by all language groups that are represented to a significant extent at the event.

Large screens and similar signs can be used to provide information to the audience on arrival and departure from the venue. The screen can also be used to communicate special circumstances at the end of a show or similar when the audience is leaving.

In addition to signs, it may be necessary to set up information points at the event venue. These may be one or more notice boards or a location with personal service. The best location will often be a central location at the event venue, but not too close to stages, gates or entrances or exits, including emergency exits and escape routes.

The organiser must be aware of the rules of the Danish Working Environment Authority and the building regulations regarding, among other things, the design of escape route signs and other safety signs.

See also Chapter 13 on information, communication and media management.

3.10 Sanitary facilities

The need for toilets, including disabled toilets, bathing facilities, water supplies, drainage, etc. depends on the type and duration of the event.

Toilets, washbasins, taps and showers should be distributed around the event site in such a way that they do not obstruct the audience's view of the stage(s) and where the need for such facilities is typically greatest. If dry toilets or toilets without drainage to the sewer system are used, provision must be made for tankers to access and empty them.

The layout of the venue must ensure that sanitary facilities are visible and clearly marked and that any queues do not block gates, emergency exits, escape routes, etc.

The number of toilets should be carefully considered and calculated. Factors such as the length of the event, the composition of the audience and the geographical location all play a role in determining the number of toilets required. Sufficient toilet capacity is essential to avoid conflicts in queues and urination along fences and food stalls. Consideration should also be given to placing toilets outside the area to mitigate the effect of many guests travelling to and from the concert area.

Toilets should be marked as clearly as bars and food stalls, and it is a good idea to have staff on hand to ensure that toilet paper, hand sanitiser, etc. are replenished regularly, as this increases capacity. The water supply is usually best located next to the sanitary facilities. If tankers are used, their location must therefore take into account any special requirements for space and soil drainage. In areas with bathing facilities and water outlets in general, drainage and a stable, water-resistant surface should be provided.

3.11 Final layout

Once all necessary requirements and facilities have been reviewed and assessed, the location of the various stage facilities, temporary camping and sales areas, parking areas, entrances and exits, etc. must be determined in an overall plan for the event site. The event plan can be drawn up in accordance with *the Building Regulations' guidelines in Chapter 5 – Fire, Appendix 11: Guidelines for outdoor events, sales areas, temporary installations, temporary accommodation and transportable structures.* A zone-divided map or map with fixed points marked is useful (especially) for larger music events to make it easier to identify a location within the area.

The map's zoning or the specified fixed points can be used in emergency response to quickly locate a place where an incident has occurred.

The map should be included in the public programme, app and staff instructions. The same map should be provided to the police, other relevant authorities and partners so that everyone is working with the same map and no one is in any doubt about which location or area is being referred to, e.g. in the event of an emergency response or accident.

4.0 Fences and barriers

This chapter covers the following topics:

- **The purpose of fences and barriers**
- **Front barriers**
- **The front zone**
- **Corridor systems**
- **Podiums**
- **Side barriers**

4.1 The purpose of fences and barriers

Fences and barriers can serve several purposes in connection with an event. Fences and barriers must be dimensioned according to their intended use. Depending on their size, design, location, etc., fences or barriers may be subject to the building regulations for structural conditions. The local authority can provide guidance on this.

The load-bearing capacity and stability of fences and barriers can be verified by applying the applicable Eurocodes, cf. BR18 Chapter 15, but this can also be verified in other ways.

Fences and barriers can typically be used for:

- Enclosing the event site (fences)
- Access control (fences and/or barriers)
- Preventing the audience from getting right up to the stage (front barriers)
- Sectioning off the audience area in front of a stage (barriers)
- Preventing the audience from climbing on mixing towers or other installations (fences)
- Controlling queues in front of stalls, toilets, etc. (fences and/or barriers)

When setting up barriers, a specific assessment of the event and the layout of the individual stages must be made in each individual case.

4.2 Front barriers

In addition to ensuring that the front barrier and barrier systems protect the audience from pressure, the organiser must also ensure that escape routes can be created from the enclosure in case of emergency. When selecting or constructing barrier systems, it is important that the organiser is clear about the purpose of the barrier, apart from delimiting the audience area and the stage area.

First, it must be assessed whether barriers are necessary. The factors to be taken into account here are the expected audience size, audience density, type of concert and the expected audience dynamics. If there is the slightest doubt as to whether pressure on the audience in front of the stage is likely to arise, barrier systems should be established to reduce this pressure and ensure the safety of the audience as far as possible.

The pressure on the front part of the audience is usually greatest at the front barrier. If the audience creates wave movements or similar, the load on the front audience can become significant and constant. Constant or dynamic pressure from the audience, combined with heat, dehydration or, for example, alcohol consumption, can cause some members of the audience to become frightened, hyperventilate or faint. If the pressure is high, in the worst case, some members of the audience may fall and have difficulty getting up again. This is extremely serious, as standing audience members may be pushed over those who are lying down. It is therefore very important to limit the risk of such pressure as much as possible. This can be done, for example, by designing front barriers and barrier systems. The density of the audience can be as high as 5 people per square metre. Individual areas at the barrier may exceed this density, but in such cases extra vigilance is required.

The pressure from and on the audience is usually greatest in the middle of the stage and, based on experience, decreases towards the sides of the stage and behind the audience area. A front barrier system should be designed to take this into account. When designing the system, it must also be taken into account that the barrier must be able to protect an escape route, i.e. it must be possible to help the audience over the barrier and away from the crowd. The barrier must therefore not be too high, but high enough that the audience is not pushed over it. It is recommended that it be approximately 1.2 metres high.

The organiser should – possibly with the assistance of professional expertise – ensure that the barrier is suitable for the purpose.

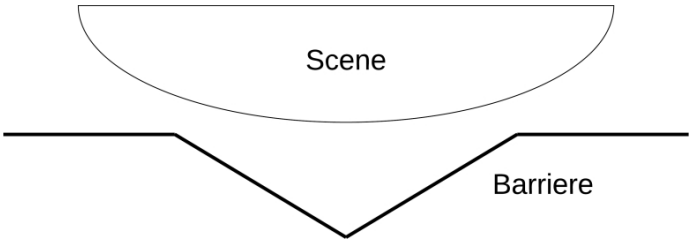
The organiser should ensure that documentation of the suitability of the selected barrier is available from the manufacturer or rental company.

To avoid personal injury, the organiser should be aware of the following:

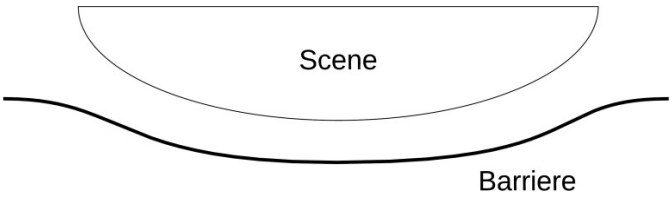
- Barriers should be smooth and without sharp edges.
- Barriers should be fixed in such a way that they do not shift, move or break under pressure
- Barriers should be completely flat or rounded at the top for the safety of the audience.
- Joints should be covered so that employees or the audience do not risk getting caught.

An angled or curved barrier system may be preferable if space permits. The angle – or curve – should face the audience and never inwards towards the stage, as this could cause the audience to become 'trapped' without being able to move to the side.

A: Example of an angled barrier



B: Example of a curved barrier



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The advantages of an angled/curved barrier construction are:

- That it causes the audience – especially if there is movement among the audience – to move away from the centre of the front barrier
- That it improves the audience's ability to move away from the centre of the stage, where the pressure is usually greatest
- That it provides a better view for the audience in the front rows
- That it improves working conditions for staff

In addition to setting up front barriers, you should generally think about whether you need to reduce the pressure on the front of the crowd with other measures, like setting up big screens or dividing the area in front of the stage into closed sections, see below about corridor systems.

4.3 Front zone

When front barriers are established, it will often be necessary to carefully assess how the front zone area between the barrier and the stage should be designed and laid out, and access to the area should be carefully considered and organised.

There should be a minimum of 1.2 metres and preferably a minimum of 1.8 metres of free passage in the front zone. This is because people are on average 60 cm wide and if you need to follow a person out, you must be able to walk side by side. The front zone should also be kept free of cables, etc.

Front zone staff will be responsible for, among other things:

- Ensuring that the audience area in front of the front barrier is safe to stand in
- Ensuring that the audience in front of the stage has the best possible concert experience and that any undesirable behaviour among the audience is dealt with
- Assisting audience members who wish to leave the area in front of the front barrier, or who are in distress or have problems, e.g. by lifting them over the front barrier and guiding them through a side exit back to the audience area or to medical assistance
- Observe the movements of the audience and be able to respond quickly in the event of a collapse or similar incident.

The design and size of the front zone should take into account that these tasks can be carried out as easily and safely as possible. There should therefore be plenty of space in the front zone, which also helps to ensure that there is a certain distance to the stage so that the audience is prevented from climbing onto the stage. The surface of the front zone should be non-slip in all weather conditions.

There should be no obstacles in the front zone that could hinder the work of front zone staff. Furthermore, first aid or other medical assistance should not be provided in the front zone if this can be avoided. Instead, a medical tent should be set up in the immediate vicinity of the front zone where first aid and other medical assistance can be provided if necessary.

During concerts, access to the front zone should be restricted to front zone personnel only. First aid personnel must be able to retrieve injured persons from the front zone and take them to first aid facilities.

Staff working in the front zone should be clearly and uniformly dressed (both in colour and text). Similarly, (in particular) non-uniformed police officers should, after a specific assessment by the police, wear a vest with the text 'police' when in the front zone. If the organiser grants special permission to others to remain in the front zone, consideration should be given to providing them with a vest indicating that they have special access and permission to remain in the front zone. By ensuring that all persons in the front zone wear a vest or uniform, it is ensured that they can immediately ascertain that no one – without special permission – is in the front zone. At the same time, it is ensured that the public can immediately see that the persons in the front zone are personnel with special tasks.

Entrances and exits to the front zone should be staffed so that only front zone personnel and police in appropriate attire can access the area. There should be a platform or step at the rear of the front barrier that personnel can stand on to better lift members of the public over the barrier and to improve the personnel's view of the crowd. It will not normally be necessary for staff to stand on such a platform at all times, and in general, when organising work in the front zone, efforts should be made to ensure that front zone staff interfere with the audience's view as little as possible.

If a series of concerts is held over one or more days with the same audience, it may be advantageous to distribute water to the audience at the front barrier. In such cases, the provision of running water should be considered. Water that is poured should be kept at a distance from the audience and with respect for the fact that it is drinking water. Cups of water should not be placed on the floor, as they may tip over and create slippery surfaces, posing a risk to staff.

If water is distributed, this should be done before the concert starts or during quiet passages during the concert so that the distribution of water does not interfere with the audience's experience of the artist. Consideration should also be given to whether handing out water distracts staff from observing the audience, in which case it should be moved to another location, carried out by specially designated staff, or omitted during the concert itself.

It should also be assessed how members of the public who have been helped over the front barrier and led away from it can be ensured the opportunity to return to the audience area, and how it can be ensured that it does not appear fun or attractive to members of the public to be lifted over the front barrier.

Front zone personnel must have training, qualifications or courses to perform the tasks in the front zones. In particular, learning about lifting techniques is essential for work safety, but learning about audience movements is also important to ensure that personnel know what to look out for and when to take action.

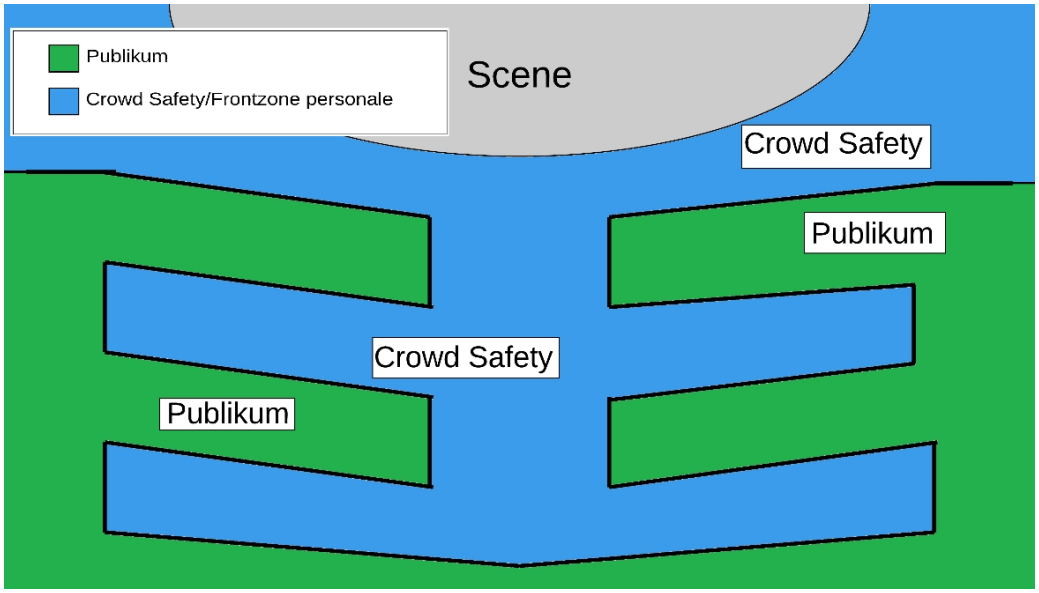
In general, detailed work plans will need to be drawn up for front zone staff (e.g. observation of crowd size, lifting audience members over the barrier, water service, communication, management, clean-up) to ensure that all types of tasks are performed in a competent and safe manner. The organiser should also consider numbering the barriers on the inside (facing the front zone area) so that front zone personnel can accurately describe where help is needed when reporting to the emergency services.

4.4 Corridor systems

For large concerts, it may be worth considering a corridor, finger barrier, Christmas tree or similar multi-barrier system. Such a finger barrier system is usually designed as a double barrier finger mounted on the front barrier and extending into the audience area. This can be combined with one or more double barriers across it and thus parallel to the stage and at a certain distance from it. In the event of violent movements, consider whether the front barrier should be mounted at a slight angle a t the joint, as perpendicular mounting can contribute to circular movements at the joint.

The fingers should be designed with the same stability and pressure strength as the front barrier and be double so that staff can move through them. They should be wide enough so that staff can not only move in two directions (outward and inward) in the fingers, but also help the audience out through the fingers.

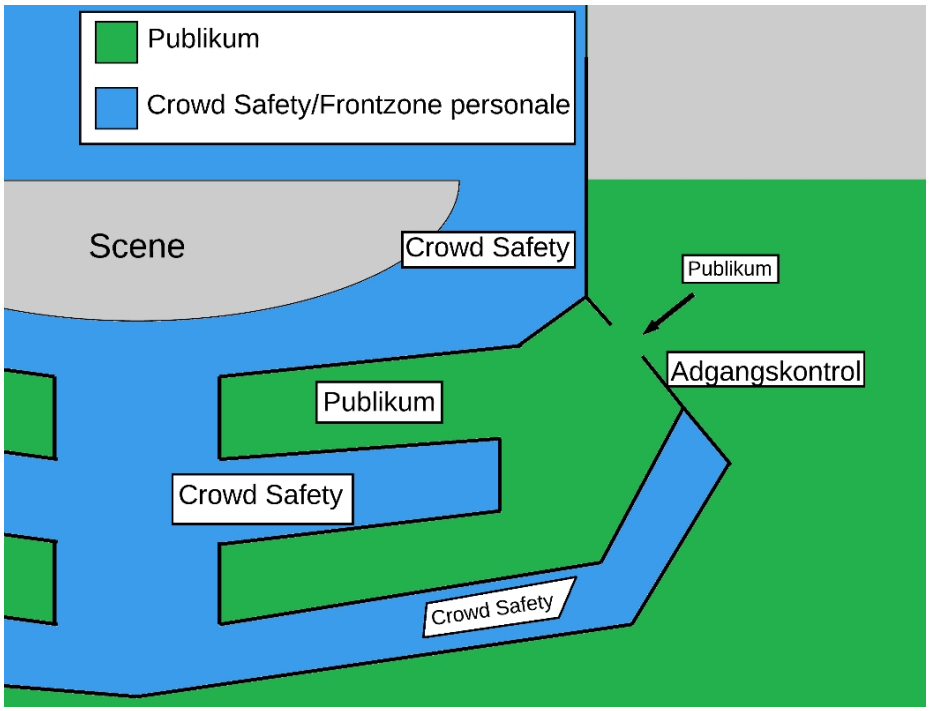
Example of a corridor/finger barrier system:



As a starting point, it is recommended that there is direct access to the front zone from the fingers.

When designing the "finger barrier construction", it is important to ensure that the audience cannot be "trapped" without being able to escape. The fingers parallel to the front barrier should therefore be designed to follow the shape of the front barrier.
Consideration may be given to establishing closed sections – delimited by double barriers with the possibility of closing the sides – in areas near the stage where only a limited number of audience members are admitted. This requires access control to the sections.

Example of barrier construction with access control to the sections:



When designing such a barrier construction, it is important to assess whether areas may arise in front of the stage where the audience may inadvertently be trapped without the possibility of escape, and to be aware of the need for escape routes. The organiser should also be aware that the entrances to the finger/corridor system are located outside the area from which the performers on stage can be seen. This is because the audience will stop and follow the music on stage – instead of moving on into the finger/corridor system – if they can see the performers on stage.

If a barrier structure of this type is erected, the barrier furthest from the stage may correspond to the front barrier. Depending on the distance, the problems experienced at the front barrier with a dynamic audience may also arise here. It is important to be aware of this, for example when assessing how much staff is needed at the barrier. The organiser should be aware that it can be difficult to control audience access in a finger barrier system.

When using an open finger system, the organiser should ensure that it is possible to control audience access, e.g. by placing staff to control access and ensure that the audience is prevented from entering when necessary. Similarly, when using a closed finger barrier system, the organiser should ensure that staff are in place to control the crowd. If the system is implemented in such a way that no staff are allocated, the opening should be larger to allow for a freer flow to and from the area.

If tickets are sold separately for individual areas of the system, this may help to shift the main crowd energy from the first barrier to the outermost barrier.

4.5 Podiums

A podium is an extension of the stage that extends from the stage towards the audience. If the podium extends into the audience area, the front barrier should be designed to also cover this podium without creating "pockets" or inward-facing traps where the audience could become trapped near the stage.

When designing the podium, it is also important to assess whether the view from the audience is impaired in certain places, which could lead to movement among the audience and thus increase the risk of some members of the audience falling.

Please note that stages, podiums, grandstands, towers and other similar portable structures may be subject to building regulations (BR18) depending on their size and location. *The Building Regulations' guidelines on the erection of portable structures, including tents, grandstands, stages, exhibition stands, portals and towers.*

4.6 Side barriers

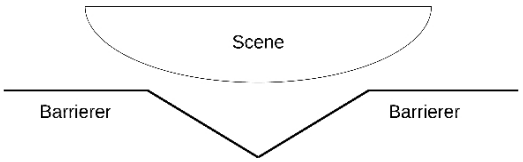
Depending on the conditions in front of a stage, it may be considered to establish side barriers as an extension of the front barrier, possibly beyond the end of the stage and any sound towers, or even further out to the sides.

Side barriers should be constructed in such a way as to ensure that the audience has free access to the sides. Side barriers should therefore be parallel to the front edge of the stage (see the example below on the left).

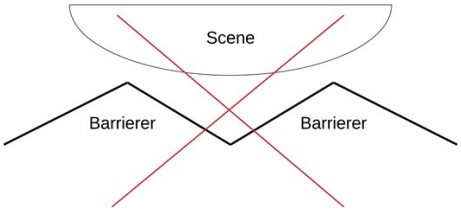
Side barriers should not be placed towards the stage (see example below on the right). Such a construction can be dangerous, as the side barriers contribute to forming a wedge in the area in front of the stage.

Example of side barriers:

A



B:



5.0 Building permit processing

This chapter covers the following issues:

- **Outdoor camping and sales areas for more than 150 people – fire safety**
- **Transportable structures**
- **The municipality's role as building authority**
- **Responsibility for failure to notify, obtain building permits or certification**

5.1 Introduction

When setting up outdoor events, it must be clarified which areas of the event site are covered by the building regulations and which areas are not covered. The areas and structures that are covered must always comply with the provisions of the building regulations, regardless of whether a building permit is required or not.

The following section deals with the parts of the site and the structures that are covered by the building regulations.

5.2 Outdoor camping and sales areas for more than 150 people – fire safety

Requirements and guidelines for outdoor camping and sales areas for more than 150 people can be found in chapters 1, 5 and 15 of the building regulations, as well as in:

- *The building regulations' guidelines on building permit applications in accordance with BR18*
- *The Building Regulations' guidelines on the erection of transportable structures, including tents, grandstands, stages, exhibition stands, portals, towers, etc.*
- *The Building Regulations' guidelines for Chapter 5 – Fire, Appendix 11: Guidelines on outdoor events, sales areas, temporary structures, temporary accommodation and portable structures*
- *Building Regulations guidelines on structural conditions for portable structures*

5.3 Transportable structures

Requirements and guidelines for transportable structures can be found in chapters 1, 5 and 15 of the Building Regulations, as well as in:

- *Building Regulations guidelines on building permit applications under BR18*
- *Building Regulations guidelines on the erection of transportable structures, including tents, grandstands, stages, exhibition stands, portals, towers, etc.*
- *Building Regulations guidelines for Chapter 5 – Fire, Appendix 11: Guidelines on outdoor events, sales areas, temporary installations, temporary accommodation and portable structures*
- *Building Regulations guidelines on construction requirements for portable structures*

5.4 The municipality's role as building authority

The municipal council is the building authority. This means that it is always the local municipality that must assess whether a portable structure or a given area at a given event is covered by the Building Act or not. When assessing whether the portable structure or area is covered by the Building Act, the municipality must, among other things, assess the specific conditions regarding the use and scope.

Deviations from the pre-approved solutions for the emergency services' response options require not involvement of a certified fire consultant, but only permission from the municipal council.

It is recommended that a preliminary dialogue be held with the municipal council, especially in cases where the guidelines for the emergency services' operational tactics are deviated from. The purpose of the preliminary dialogue is to discuss the intended solutions and set the appropriate safety level for the solutions that deviate from the pre-approved solutions and the traditional operational solutions. Through dialogue, it will be possible, with the municipal council's approval, to deviate from the traditional operational solutions, e.g. based on local conditions.

5.4.1 The municipality's response to illegal conditions

If the municipality becomes aware of an illegal situation under building legislation, e.g. if a portable structure has been erected without prior building permission or if the structure is not covered by a valid certificate, the municipality is obliged to respond and may issue a stop notice. The structure may then only be legally used again once a building permit has been granted or valid certification has been obtained.

In addition, anyone who illegally erects a portable structure without valid certification or permission from the municipality may be punished with a fine in accordance with section 564 of the Building Regulations.

5.5 Responsibility regarding lack of notification, building permit or certification

As a general rule, the owner of a structure is responsible under the rules of building legislation for ensuring that a structure is legal, including that a portable structure has the necessary building permit or certification before it is erected. This means that it is the owner of the structure who must remedy the illegal situation. This can be done by obtaining a building permit from the local authority, having the structure certified or by removing the structure completely. However, in the case of rental, the owner cannot always be held responsible.

If the illegal situation consists of illegal use of the structure, the user may also be liable. A user may, for example, be a person who has rented a structure. Illegal use may be if the structure is used or erected in a manner other than that specified in the building permit or the manner specified in the certificate. In practice, it is the organiser who applies for a building permit if the use of the structure deviates from the certificate.

For further guidance, please refer to the above-mentioned guidelines for the building regulations.

6.0 Fire safety

This chapter covers the following topics:

- **Planning and management**
- **Layout of the venue**
- **Music stages and other entertainment**
- **Firefighting and firefighting equipment**
- **Fireworks and other flammable effects**
- **Flammable substances and similar materials.**
- **Use of outdoor sports arenas for events**
- **Emergency planning**
- **Fire inspection**

6.1 Introduction

Fire prevention requirements must, among other things, ensure free and adequate escape routes that allow all persons present to reach safety in the event of a fire or other incident. Furthermore, the requirements must ensure that the risk of a fire breaking out or spreading is limited as much as possible and that adequate rescue and firefighting facilities are available in the event of a fire.

Several authorities are responsible for fire prevention requirements at large outdoor events. In general, a large outdoor event will be regulated by the Building Regulations (BR18) if there are assembly tents for more than 150 people in the area, sales areas for more than 150 people, etc. (see below). However, there may be open areas at the event that are not regulated by the building regulations. In such cases, the Emergency Services Act may be applied if the municipal emergency services deem this necessary based on a specific assessment of the circumstances of the event and consideration of the emergency services' response capabilities and ability to reach and extinguish a possible fire. For further guidance, please refer to the Danish Emergency Management Agency's guidelines on the application of the Emergency Management Act at major outdoor events.

All events are different depending on access conditions, layout, weather conditions, etc., which is why the municipal emergency services are authorised under the Emergency Services Act to impose additional operational conditions on the organiser if this is deemed necessary for fire safety reasons. However, the starting point will be that it will not be necessary to impose such operational conditions. A large outdoor event will often be regulated by building regulations, and the emergency services' response conditions and ability to reach the scene to extinguish a fire will in these cases often be taken into account in the building regulations.

6.2 Planning and management

In connection with major events, planning and management are two important elements for a successful and safe event.

Different fire safety requirements apply depending on the regulations that apply to the venue. For the part of the venue covered by building regulations (BR18), the rules described therein and in the accompanying guidelines apply. For the part of the venue that is not regulated by the building regulations (BR18), there may be other rules that must be observed. For example, the municipal emergency services may impose operational conditions on the organiser pursuant to the Emergency Services Act, cf. section 6.1 above. It is therefore important that the organiser checks in advance which rules apply to the site and the individual areas.

6.2.1 Management and communication

Good communication between the event management, the local authority, the emergency services and between the authorities themselves is crucial for fire safety at an event. Information to the public and information from the public to the emergency services in the event of an emergency are important elements when assessing communication needs and methods.

Information to the public

When considering and preparing information material for the public, the local authority and emergency services, and possibly also the police, should be involved. The information material may include information on rules and regulations, the location of fire-fighting equipment and alarm systems. Information for the public may include maps showing the location of escape routes, escape route signs, notices on rules and regulations, fire-fighting equipment, cooking facilities and waste containers. Information may also be provided on the use of open flames, the prohibition of bringing furniture and similar flammable items, and the prohibition of bringing fireworks into camping areas.

The public must also be informed of the location of telephones, radios or other means of communication for alerting the emergency services (fire brigade). The public must also be informed about how to alert the emergency services, e.g.: "Call 1-1-2, report what has happened, where it has happened, who you are and how many people have been injured."

Information and instructions for staff

Staff shall be informed by means of signs showing the location of fire-fighting equipment, the location of escape and rescue routes and the location of telephones, radios or other means of communication for alerting the emergency services.

It is very important that staff are familiar with the escape route conditions and have received the necessary instructions regarding evacuation, as it may be necessary to assist members of the public in reaching safety.

Staff must be informed of how to alert the emergency services. For portable structures, including marquees, used by more than 150 people, fire and evacuation instructions must be displayed in places where staff are present. fire and evacuation instructions must be posted, describing at least how to alert the emergency services, how staff are to be informed of the emergency and that staff must ensure that guests are brought to safety. Staff must be instructed on the content of such instructions.

Information for the local authority and emergency services

Both the local authority and the emergency services must be informed of how the organiser or the person in charge and other responsible persons can be contacted throughout the event.

6.3 Layout of the venue

Requirements and guidelines for the layout of areas and the erection of transportable structures covered by the Building Regulations are set out in the Building Regulations (BR18) and *the Building Regulations' guidelines for Chapter 5 – Fire, Appendix 11: Guidelines for outdoor events, sales areas, temporary installations, temporary accommodation and portable structures.* The associated guidelines for portable structures and camping and sales areas for more than 150 people.

During the planning phase, a decision must be made on a suitable location for the event, including an assessment of whether it is suitable in terms of fire safety. This assessment is normally carried out by the police. The assessments must also take into account the location of the site in relation to the response times of the emergency services and ambulance services, including the location in relation to hospitals in the area. As the organiser must take ambulance routes into account, it should be remembered that the application and description thereof must also be submitted to the pre-hospital manager in accordance with Chapter 7.

The specific use of the site and its division into sub-areas must be planned and assessed as a whole. There must therefore be sufficient space for rescue and firefighting in all sub-areas, and there must be good access for emergency vehicles. Common to all areas are the escape route conditions, which must ensure that all persons – audience, volunteers or other personnel associated with the event – have unobstructed access to a safe area away from a fire or other threatening accident. In the event of an evacuation, most people will choose the route they came in, which must be taken into account when designing escape routes and exits. If the route is blocked, it must be clearly indicated which escape route can be used. It is therefore important to have clear escape route signage.

Escape route signs must be placed at each exit on the premises. The size of escape route signs must be sufficient to enable the public to clearly see an escape route sign from any location on the site. A formula for the size of escape route signs can be found in Chapter 3 on the layout of the event site, but the size of the signs may vary depending on the conditions at the site. If the venue or parts of it are surrounded by fences and are used after dark, all escape route signs must be illuminated. The lighting must be able to function after a power failure for the time necessary to evacuate the venue (plus a safety factor).

If assembly tents for more than 150 people are erected on the site, it must be ensured that the escape routes from the tent lead to safety in the open air. See more about this in the building regulations guide.

Throughout the event, the site must be regularly cleaned of rubbish and other flammable materials to reduce the risk of fire, and escape routes must be kept clear and unobstructed across their entire width.

6.3.1 Description and drawings

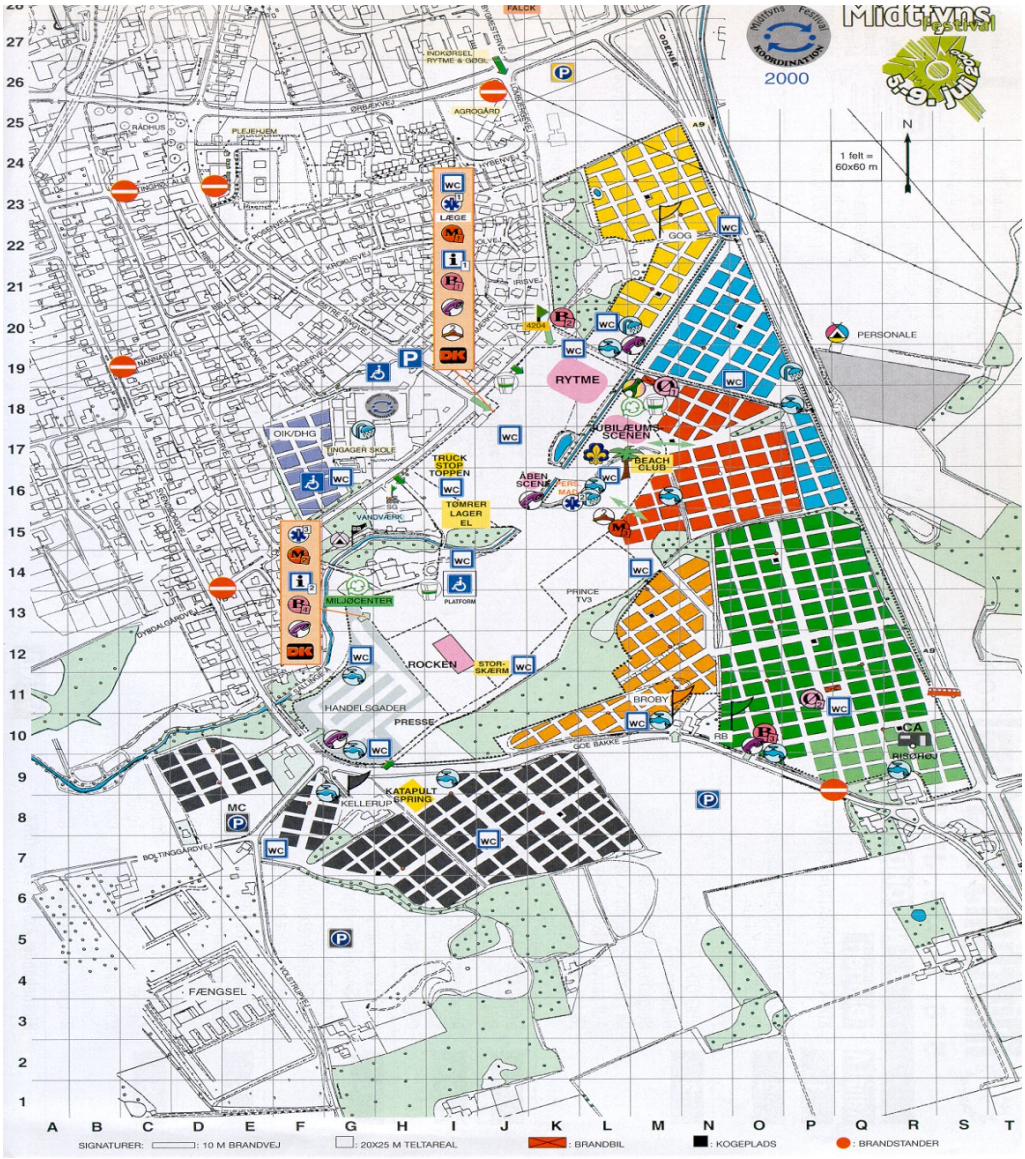
For the application or notification to the local authority, an event plan must be drawn up, specifying the location, layout and use of the individual sub-areas. The description must be accompanied by drawings showing the exact dimensions. Read more about this in *the Building Regulations' guidelines for Chapter 5 – Fire, Appendix 11a: Guidelines for event plans for temporary outdoor events.*

The drawings must consist of at least one overview map of the entire site (see fig. 3) and detailed plans of sub-areas, the location of assembly tents, sales areas, camping areas (including tent areas and caravan areas), parking areas, stages, backstage areas and service areas.

The overview map must show the following:

–

- Access roads to the site
- Areas for rescue and firefighting, including open spaces
- The various sub-areas, including areas where assembly tents and function rooms are erected, camping areas, service areas, parking areas and stages with backstage areas
- Storage facilities for bottled gas (F-gas) to be used for cooking or heating
- Storage of diesel for generators or heating
- Specially designated areas in connection with a possible evacuation.



The detailed map of sub-areas must show the following:

- Escape routes, including the location of escape route signs
- Fire extinguishing equipment
- Fire lanes and clear areas
- Waste containers
- F-gas storage facilities
- Transportable temporary structures

6.3.2 Assembly tents

The pre-approved solutions for fire safety for temporary installations (maximum 6 weeks) of portable assembly tents are set out in *the Building Regulations' guidance for Chapter 5 – Fire, Appendix 11: Pre-approved solutions for assembly tents and temporary outdoor camping and sales areas.*

For assembly tents for more than 150 people, notification with information about the tent's layout and use must be sent to the municipality no later than 4 weeks before the structure is put into use, cf. the Building Regulations § 6e. In addition, an operation, inspection and maintenance plan (DKV plan) must be drawn up, cf. Section 157 of the Building Regulations.

The above is considered to have been fulfilled if the operation, inspection and maintenance plan has been carried out in accordance with *the Building Regulations' guidelines in Chapter 5 – Fire, Chapter 7: Operation, inspection and maintenance of fire safety in and around buildings.*

The space allocation plan must be prepared in accordance with *the Building Regulations' guidelines in Chapter 5 – Fire, Appendix 11c: Guidelines on space allocation plans.*

If barriers are erected in assembly tents in connection with, for example, crowd control, it is important that the barriers do not alter the escape routes and that there are still adequate rescue and firefighting facilities in the event of a fire. If barriers are erected in the tent/building, a space allocation plan is required.

6.3.3 Temporary outdoor camping areas

The pre-approved solutions for fire safety in outdoor camping areas are set out in *the Building Regulations' guidelines for Chapter 5 – Fire, Appendix 11: Pre-approved solutions for assembly tents and temporary outdoor camping and sales areas.*

The organiser or the person responsible for the event must ensure that the camping area is set up in accordance with the provisions of the guidelines and that the rules of conduct are observed unless another solution is documented.

Camping areas must be located, set up and used in accordance with the provisions of the building regulations. In this connection, the organiser must, among other things, decide how many people may stay overnight in the areas.

Areas with service facilities for the public may be established in the camping areas. If sales stalls are set up in such areas, the requirements for sales areas apply.

Waste at temporary camping sites increases the amount of combustible material. A plan should therefore be drawn up for how waste disposal will be handled. As the area is a public area, it may be difficult to get people to place their waste in containers. The DKV plan must therefore also include regular cleaning of the area and removal of waste from the site at least once a day.

It may also be necessary to secure the containers against arson.

Access to the camping areas must be adapted so that emergency vehicles can reach the individual areas without obstruction. When designing access roads, the height, width, weight and turning radius of emergency vehicles must therefore be taken into account. See more about this in the building regulations guidelines.

6.3.4 Sales areas

The pre-approved solutions for fire safety in sales areas for more than 150 people are set out in the guidelines for *events, sales areas, temporary installations, temporary accommodation and transportable structures*.

Sales areas may occur in several places at an event site in connection with music areas, camping areas or in separate areas.

Sales areas with stalls where food is prepared must be separated from the public, as these areas contain large amounts of flammable paper waste. Waste must not be placed near the sales stalls, but must be placed in the containers provided. Waste containers must be emptied at least once a day. During the planning phase, consideration must be given to access for vehicles collecting waste, as container trucks take up a lot of space.

To ensure a high level of fire safety in the sales areas, escape routes must be established to ensure the safety of staff and the public in the open air, and the distances between waste containers and F-gas installations and depots must be observed.

As there are usually large crowds in sales areas, it must also be taken into account that these areas must be large enough to ensure the safety of staff working in the sales booths. The rear areas of the sales booths must be properly cordoned off from the public, and all escape routes from the individual sales booths must have access to the rear areas or to open spaces between the booths.

6.4 Music stages and other entertainment

Requirements and guidelines for the erection of stages and similar portable structures are set out in chapters 1, 5 and 15 of the Building Regulations, as well as in:

- *The Building Regulations' guidelines on building permit applications in accordance with BR18*
- *The Building Regulations' guidelines on the erection of portable structures, including tents, grandstands, stages, exhibition stands, portals, towers, etc.*
- *The Building Regulations' guidelines for Chapter 5 – Fire, Appendix 11: Guidelines on outdoor events, sales areas, temporary installations, temporary accommodation and portable structures*
- *Building regulations guidelines on construction requirements for transportable structures*

The erection of grandstands, including stage and spectator structures, etc., used in connection with sports, music or similar events is covered by the Building Act. Certain stages and

[1] See also *the Building Regulations' guidelines for Chapter 5 – Fire, Appendix 11: Guidelines on outdoor events, sales areas, temporary installations, temporary accommodation and transportable structures.*

other transportable structures above a certain size require a building permit from the municipality or certification before they may be erected.

Stages must be erected in such a way that they do not obstruct the audience's access to escape routes. Equipment used in connection with indoor stages, such as front curtains, intermediate curtains, back curtains, scenery, set pieces and decorations, is subject to special requirements regarding the fire properties of the materials.

The backstage areas typically used by staff and performers should be separated from the audience. The layout of such areas will vary greatly, as they may include tents, carts, trucks, etc. This means that escape route conditions can be difficult to assess. The areas are used by people who are often unfamiliar with the premises, so it is recommended that escape route signs with directional arrows be installed to clearly indicate the direction to safe areas.

6.5 Firefighting and firefighting equipment

There may be a requirement for fire-fighting equipment to be available on site. The rules for fire-fighting equipment are set out in Chapter 5 of the Building Regulations and the associated guidelines. Fire-fighting equipment must comply with the Danish Safety Technology Authority's rules on the design of pressure equipment.

Fire extinguishing equipment must be checked and inspected in accordance with the applicable rules in the building regulations. Fire extinguishing equipment must be placed in a visible and easily accessible location. The locations must be marked in accordance with the Danish Working Environment Authority's rules on safety signage.

6.6 Fireworks and other flammable items

During the planning phase, the organiser must also be aware of whether fireworks, other pyrotechnic articles, flammable effects or open flames will be used on stage or outdoors by performers or others during the event. Any use of fireworks for entertainment purposes that are designed for professional use, such as stage fireworks and fireworks for outdoor use, requires a permit from the local municipal emergency services. These fireworks may only be used by an approved fireworks operator and must be used in accordance with the provisions of the Danish Safety Authority's Executive Order on the import, manufacture, storage, transfer, acquisition and use of fireworks and other pyrotechnic articles. Specific distance and safety requirements apply.

Approved consumer fireworks may only be used outside the period from 27 December to 1 January by an approved fireworks display operator. The use of approved consumer fireworks does not require a permit, but must be reported (no later than 14 days in advance) to the local municipal emergency services.

Under the fireworks regulations, the emergency services may, within a specified area, either completely ban the use of fireworks in the open air for a specified period or lay down specific conditions for their use. A condition for this is that, due to

extraordinary circumstances, it is deemed necessary to reduce the risk of fire. The organiser should therefore contact the emergency services in the municipality where the fireworks are to be used well in advance of the event (no later than 14 days before) if permission is required for the use of fireworks.

If the performers wish to use other effects, e.g. gas generators to produce fireballs and similar, it is important that documentation of the construction and safe use of these devices is submitted in good time.

The application must state how the risk of injury to persons and damage to property, as well as nuisance to the surrounding environment, will be minimised. The application must also state how the organiser will comply with the distance and safety requirements. It is not sufficient to state safety distances alone. Larger events attract larger crowds, and an assessment of the risks associated with the individual event is necessary.

Foreign fireworks operators who wish to use professional fireworks in Denmark must notify the Danish Safety Technology Authority of their profession prior to the event (no later than 30 days before), cf. the Executive Order on Mutual Recognition. The Safety Authority will then issue a fireworks operator licence, which must be presented to the local emergency services.

It is not permitted to use fireworks in camping areas.

6.7 Flammable substances and similar

Emergency response legislation contains fire prevention rules for handling flammable substances, etc. These rules fall under the Danish Emergency Management Agency. The organiser should therefore be aware of contacting the local emergency response services if flammable substances are handled at the event, such as:

- *Storage of gas: See more information on the Danish Emergency Management Agency's website - Gases (brs.dk)*
- *Storage of flammable liquids. See more information on the Danish Emergency Management Agency's website - Flammable and combustible liquids (brs.dk)*
- *Presence of BESS systems. See more information on the Danish Emergency Management Agency's website - Guidelines on fire safety for large storage facilities for lithium-ion batteries and BESS (brs.dk)*
- *Storage of flammable solids: Flammable solids (brs.dk)*

The list is not exhaustive. If the event organiser handles flammable substances/liquids/gases and similar, the municipal emergency services should be contacted.

6.8 Use of outdoor sports arenas for events

It has become more common to use sports arenas and similar venues for events and activities for which they were not originally intended. This can give rise to certain issues, such as escape routes, which must be taken into account. As an organiser, you should expect to have to draw up a safety plan, as for other large events, which must be enclosed with

the application to the police. Stadiums are usually designed with escape routes from the spectator stands, and problems may therefore arise when using the lawn as a public area. Particular attention should be paid to the number and width of escape routes and the distance to the nearest escape route.

As in assembly tents, it may be necessary to set up barriers/multi-barrier systems as part of crowd control measures. Here, it is important that the barriers/multi-barrier systems do not alter the escape routes and that there are still adequate rescue and firefighting options in the event of fire or panic. If barriers are set up in a sports arena, this will often require a seating plan from the local authority.

Multi-barrier systems are often designed with a narrow entrance and exit to ensure that no more people enter the area in front of the stage than safety permits. It must be ensured that these people can quickly and safely leave the area enclosed by the multi-barrier system and proceed to safety in the open air in the event of an emergency.

Larger escape route signs may be necessary when using the lawn as a public area, as they must be visible from the furthest point on the lawn.

Outside emergency exit doors, it is important that there is sufficient space to accommodate the number of people for which the event is designed, otherwise there may be a bottleneck in the escape routes. It may be advantageous to have staff at the exits to help people leave the area outside the exits. It should be noted that when using the lawn as a public area, a stadium can accommodate a significantly larger number of people than during normal operation. In addition to escape routes, it may be necessary to consider how to plan entrances, exits, sales booths, toilet facilities, etc., so that there are not too many opposing flows of people, as this could hinder people's movement. Furthermore, it may also be necessary to consider whether to establish pre-hospital measures in connection with an event of this nature.

Escape routes must also ensure that the crowd can get to a safe distance from the building in the event of a fire. And not just evacuation to the area immediately in front of the building. It must also be ensured that the emergency services can access the building to extinguish the fire and that the crowd in front of the building does not obstruct their access. This is also stated in the building regulations.

The use of outdoor sports arenas for music events may in some cases be considered a change of use under the building regulations.

6.9 Emergency planning

In connection with major events, an emergency plan should be drawn up to optimise preparedness for undesirable incidents. See section 1.4.3 of the guidelines.

An emergency plan can vary greatly in content depending on the size and nature of the event. However, the most important thing for such a plan is that it is easy to understand and directly applicable.

6.10 Fire inspection

The emergency services may choose to carry out a fire inspection at an event if this is deemed necessary on the basis of a specific assessment of fire safety in accordance with the Danish Emergency Management Agency's fire inspection regulations. During the fire inspection, the emergency services will check:

During the fire inspection, the emergency services will check:

- Transportable structures for more than 150 people
- Temporary camping and sales areas for more than 150 people
- Events where the municipal council (the municipal emergency services) has imposed operational requirements in accordance with section 35(3) of the Emergency Services Act.

In addition, an event fire inspection checks that:

- The event is located, arranged and the area is used as permitted
- Gates and other access routes necessary for the emergency services' rescue and firefighting work are passable
- Required water supply points are usable and accessible

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7.0 Pre-hospital emergency response

This chapter covers the following topics:

- **Pre-hospital emergency response**
- **Risk and vulnerability assessment**
- **Assessment of the need to provide your own emergency response**
- **Knowledge of existing pre-hospital emergency response in the local area**
- **Cooperation with local emergency response services**
- **Supervision by the Danish Patient Safety Authority**

7.1 Pre-hospital emergency response

In the event of a sudden illness or accident, the pre-hospital emergency services are alerted via 1-1-2. Depending on the specific report, an ambulance and, if necessary, additional pre-hospital units are dispatched, or the patient is referred to their own transport. The individual region's AMK emergency response centre (Akut Medicinsk Koordinering) will assess the need for pre-hospital care based on information about the patient's condition. The organiser must therefore familiarise themselves with the pre-hospital emergency services in the region where the event is to take place in order to assess, in cooperation with the region's pre-hospital emergency services, whether it is necessary to establish their own first aid response.

7.2 Risk and vulnerability assessment

The organiser must carry out a risk and vulnerability assessment as a basis for determining the level of pre-hospital services to be offered to participants in the event.

The risk assessment should take into account the composition of the audience, including whether the audience is accustomed to participating in the type of event in question; the expected behaviour of the audience, including an assessment of alcohol and/or drug consumption; the nature of the venue and access conditions, when the event is held (season and time of day), the types of accidents that may occur, how many people may be affected by the accident and how often there is a risk of the various accidents occurring.

The consequences of an accident, including whether people have been affected by smoke, burned or trapped, the nature of the injuries, such as wounds, large and complicated fractures and injuries, and whether many people are injured at the same time, panic reactions, shock, etc.

Vulnerability to accidents and illness depends on the group of people participating in the event, including the age and expected state of health of the participants.

The assessment of vulnerability should include an assessment of the expected frequency of common illnesses, as in all large events (depending on the group of participants) – statistically speaking – a certain number of heart attacks, asthma attacks and similar incidents can be expected.

7.3 Assessment of the need to provide emergency services

The regions are not obliged to provide special emergency services to the organiser, but are obliged to dimension hospital and ambulance services to handle both daily operations and emergency incidents in the region.

Based on the assessment of the risks and vulnerabilities of the event, together with knowledge of the regional pre-hospital emergency response in the local area, the organiser must assess whether and, if so, to what extent the organiser should set up its own first aid response. An event's own first aid response may, for example, consist of

people with first aid training, such as first aiders, nurses, doctors or ambulance personnel.

The size and composition of an event's own first aid response should be based on the risk assessment; how many cases of illness or injury are expected, and what skills are relevant in relation to the expected illnesses or injuries.

For events with more than 10,000 guests, a separate first aid response team should be established as a general rule, unless the organiser can demonstrate, based on specific parameters (intensity, expected behaviour, etc.) and, if necessary, in consultation with the pre-hospital emergency services, that there are circumstances that argue against this. Similarly, there should be a separate emergency response team for events involving particular risks. The assessment of whether an event can be classified as particularly high-risk may, depending on the circumstances, be made in consultation with the regional pre-hospital emergency services. The organiser should consider whether a separate first aid service should also be provided during the set-up and dismantling periods.

7.4 Knowledge of the local pre-hospital emergency services

The organiser must send the safety plan directly to the pre-hospital emergency services in the region (and any other cooperating authorities) with notification to the police district so that the region can support the organiser's risk assessment, including an assessment of whether the organiser needs to establish emergency services beyond the usual. In order to find out what pre-hospital services are available from the region in the event of an accident or illness, the organiser is advised to contact the pre-hospital emergency services.

Regional pre-hospital response varies from area to area, including within individual regions. This may include response by ambulance, emergency vehicle, emergency doctor's car and emergency helicopter.

The distance to the nearest relevant hospital should be taken into account by the organiser when considering their own first aid arrangements. Treatment options vary between hospitals; for example, not all hospitals have 24-hour emergency rooms/reception facilities. Information about this can be obtained from the pre-hospital emergency services and should be included in the organiser's considerations regarding their own first aid response.

Contact with the person responsible for the region's pre-hospital emergency services not only provides information about the emergency services that the region can provide in the event of an accident or acute illness. It also provides information on whether the region intends to take special emergency measures in connection with the event, such as extra staffing at hospitals, additional ambulance services and advanced emergency rooms.

7.5 Cooperation with local emergency services

The event's own first aid response must be coordinated with the existing regional pre-hospital emergency response in the local area, and there should be clarity about the division of tasks between the event's own first aid response and the region's pre-hospital emergency response, e.g. in relation to agreements about who does what, when and for how long.

There should be clarity in the management of the event's own first aid response. This should include clarity about the tasks of the person responsible for the event's emergency response, e.g. in relation to planning, delegation of responsibility, communication, etc.

The organiser should consider entering into agreements with authorities, e.g. the police, emergency services and the region's health services, on cooperation in the event of accidents and sudden illness.

This could include agreements on alerting the region's pre-hospital emergency services, transferring responsibility for patients and evaluating the event or specific incidents, as well as communication between the event organisers and the region's health emergency services. As a minimum, there should be agreements on the procedure for activation, including, for example, who activates (e.g. first aiders directly to 1-1-2, or via an affiliated doctor or the person at the organiser who is responsible for the event's own first aid response).

There should be well-functioning, easily accessible communication between the region's pre-hospital emergency services and the organiser's first aid response. This will ensure rapid and correct triage of the pre-hospital response.

The organiser must consider how communication will be ensured in the event of a mobile phone network failure. See more about this in chapter 13 of the guidelines on information and communication.

The organiser must agree on a point of contact for pre-hospital emergency services and other emergency response actors. The point of contact may be a valid address or specially agreed geolocation points. The organiser may wish to ensure that someone is present at the point of contact or, alternatively, use signage to ensure that ambulances, etc. can easily find the first aid station.

For events covering a certain geographical area, the organiser should send useful map material to the region's pre-hospital emergency services. The map material should preferably include coordinates so that emergency services can easily find their way. At the same time, a contact point for the authorities should be established in case of a major incident, and a description of access routes for emergency services should be provided. See more about this in section 9.6 on rescue routes.

7.6 Supervision by the Danish Patient Safety Authority

Treatment facilities where treatment is provided by or under the responsibility of authorised healthcare professionals are covered by the Danish Patient Safety Authority's supervision and registration scheme and the associated fee.

If an event provides first aid facilities, for example at a festival, this will be considered a treatment facility.

Temporary treatment sites at events with more than 1,000 expected participants must be registered in the Danish Patient Safety Authority's Treatment Site Register. However, if the event has entered into an agreement with an already registered treatment site that the latter will provide emergency services, the event does not need to be registered separately.

Temporary treatment sites with fewer than 1,000 expected participants, where only unpaid volunteer healthcare professionals provide healthcare treatment, must not be registered in the Treatment Site Register, but the Danish Patient Safety Authority must be notified.

8.0 Working environment

This chapter covers the following topics:

- **Working environment at music festivals**
- **Work environment responsibilities for employers and self-employed persons**
- **Cooperation between employers during the festival**
- **Accidents**
- **Mental working environment**
- **Noise**
- **Other areas**

8.1 Introduction

When organising outdoor music events, music festivals and similar events (hereinafter referred to as festivals), there are a number of health and safety regulations that employers who employ staff at festivals must be aware of and take into account. Much of the health and safety legislation also applies to self-employed persons without employees.

8.2 Health and safety at music festivals

The health and safety regulations apply to everyone working in connection with the staging of festivals, including volunteers. However, the rules on health and safety organisation (AMO) and workplace assessment (APV) do not apply to voluntary work that is of a recreational nature and is carried out for non-profit organisations. As part of their coordinating role in relation to cooperation between authorities, the police will often require that the Danish Working Environment Authority be informed about the event in the event permit via a form on the Danish Working Environment Authority's website.

8.2.1 When the festival site is a construction site

In connection with the construction of the festival site and later, when the festival area is to be restored, a number of works will be carried out that are covered by the working environment legislation on construction and civil engineering works. This includes, among other things, the construction, erection and dismantling of stages, tents, other temporary buildings and stalls, as well as the construction of traffic routes for the public, etc. The festival area or parts thereof will often be cordoned off with fences or similar during construction and restoration, and the Danish Working Environment Authority will normally consider the entire fenced-off area as one or more construction sites.

If two or more employers are involved in the construction and installation work at the same time, the festival organiser must be aware of the health and safety requirements that apply to building contractors. The client – who will typically be the festival organiser – is responsible for coordinating health and safety between the employers on the construction site and must appoint a coordinator to be in charge of this coordination. In consultation with their coordinator, the client also has overall responsibility for coordinating safety between employers in the common areas of the construction site. Read more about the client's obligations on the Danish Working Environment Authority's website.

Once the festival site has been set up and the construction and civil engineering work has been completed, the Danish Working Environment Authority no longer considers the festival area to be a construction site, but rather an area with several employers and workplaces and with a number of areas that function as a shared workplace for several employers at the same time.

8.3 Work environment responsibility for employers and self-employed persons

The festival organiser will often have employees, including volunteers, working at the festival site. In relation to these employees, the festival organiser is considered the employer. The festival organiser will have outsourced many tasks to subcontractors, including, for example, employers of music artists and employers of food stall staff, etc. Individual employers are responsible under the Working Environment Act for their employees,

including volunteers at the festival site, and individual self-employed persons without employees are responsible for their own work under the Working Environment Act.

8.4 Cooperation between employers during the festival

The Working Environment Act requires that several employers who have work carried out at the same workplace, and everyone employed at the same workplace, must cooperate to create safe and healthy working conditions for all employees. This also applies to work carried out by different employers at festival sites, including self-employed persons without employees.

The cooperation includes employers informing each other about the risks associated with their work tasks at the workplace and jointly determining whether these risks may affect other employers' performance of their work tasks. The purpose of the cooperation is thus to ensure that each employer can take the necessary technical and organisational measures and pass on information about risks to their employees and volunteers.

Unlike in construction and civil engineering work, there is no obligation to coordinate health and safety cooperation, but it would be appropriate for the festival organiser to arrange for coordination between employers at the festival site who have the same place of work, e.g. by appointing a person at the festival organiser who is responsible for coordinating cooperation on the working environment and whom employers can contact if they experience problems with cooperation.

8.4.1 Hiring and lending of employees

Festival organisers often make some of their own employees or volunteers available to work for subcontractors/employers, and it also happens that different employers at the festival site hire or borrow employees and volunteers from each other to carry out work tasks. In these situations, individual employers must be aware that employer responsibility under the Working Environment Act may be transferred to the employer who actually employs the employee. Who is considered the employer and has employer responsibility depends on a specific assessment, which includes who instructs the employee on the work, who provides machinery and tools, etc. for the performance of the work, and who supervises the employee's work. The assessment of employer responsibility may also include which of the potential employers is responsible for the work performed by the employee. If the festival organiser makes some of their volunteers available to another employer, it is recommended that it be agreed in advance who has the employer obligations and thus also responsibility for the volunteers' health and safety.

8.4.2 Voluntary work

Many festival organisers make extensive use of unpaid volunteers. The festival organiser is responsible for ensuring that the work of the volunteer is planned, organised and carried out in a manner that is fully safe and healthy. This applies regardless of how long the volunteer's work lasts.

Voluntary work that is recreational in nature and carried out for non-profit organisations that do not operate for profit is not covered by the health and safety regulations on cooperation on

health and safety (AMO) and workplace assessment (APV) rules. This means that voluntary work carried out for the festival organiser as an employer will often be exempt from the AMO and APV rules, while voluntary work carried out for other employers at the festival site will not usually be considered leisure activities carried out for non-profit organisations and therefore will not be exempt from the AMO and APV requirements.

8.4.3 Foreign companies

Foreign companies, including self-employed persons without employees, who perform work in Denmark must comply with Danish health and safety regulations, and the equipment etc. they use must be approved in accordance with or comply with Danish regulations. Foreign companies are responsible for the health and safety of their employees and volunteers working at the festival site.

Foreign companies and self-employed persons without employees who are temporarily working in Denmark must register with the Register of Foreign Service Providers (RUT).[2] Self-employed persons without employees are required to register with RUT only if the work they perform is construction or installation and repair of machinery and equipment. Many foreign companies are not familiar with the rules for RUT, so festival organisers would be well advised to inform their foreign employers about these rules before they start work in Denmark. Registration with RUT must be done digitally atwww.virk.dk/rut .

If, during an inspection visit, the Danish Working Environment Authority finds that a company has not registered with RUT or has provided incorrect or incomplete information, the Danish Working Environment Authority will either report the matter to the police or issue an administrative fine to the company. SKAT will also be notified.

At www.workplacedenmark.dk, foreign service providers and workers can read more about their rights and obligations in Denmark, including the obligation to register with RUT.

8.4.4 Work injury insurance

Under the Industrial Injuries Insurance Act, everyone who is employed to perform work in this country for an employer is compulsorily insured under the Act. The work may be paid or unpaid, and may be permanent, temporary or temporary.

Employers who employ people are obliged to insure their employees. The insurance obligation entails an obligation to take out insurance with an insurance company against the consequences of accidents and to pay contributions to the Labour Market Insurance Scheme against the consequences of occupational diseases.

Special rules apply to work carried out under the auspices of associations. The main rule is that work is not covered by law when a member of an association carries out voluntary work within the scope of the association's objectives. This means that the association has no duty to insure voluntary work carried out within the scope of the association's objectives. Volunteers who perform work within the association's objectives should therefore ensure that their own accident insurance will cover any injury sustained while performing the work or take out separate insurance for this purpose. If a member of an association performs voluntary work for the association,

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[2] The obligation to report to RUT does not apply to foreign musicians performing at festivals, among others. You can read more about exceptions to the obligation to report to RUT on the Danish Working Environment Authority's website.

that is outside the scope of the association's purpose, the person concerned is covered if an accident at work occurs. This means that the association has a duty to insure such work.

When assessing an association's purpose, consideration is given not only to how the purpose is formulated, e.g. in the association's articles of association, but also to what the purpose can be assumed to be in practice, based on the activities carried out under the auspices of the association.

8.4.5 Workplace assessment (APV)

According to health and safety legislation, all companies with employees must carry out a workplace assessment (APV), in which the health and safety conditions at the workplace are reviewed and risk assessed. This also applies to work carried out by the company's employees in connection with the staging of festivals. Failure to conduct an APV may result in an order from the Danish Working Environment Authority in connection with a possible inspection visit.

When working at festivals, the APV must take into account all areas of work and functions relevant to the work that employees are required to perform for the company or association during the event. At a festival, there will often be several activities, work functions and companies operating at the same time and place, and it may be necessary to take this into account when carrying out the APV. In this context, it may also be necessary to coordinate the assessment of work environment risks in relation to each other and across companies and associations, etc. This will often be relevant when setting up tents and stages, for example.

Work environment legislation imposes a number of requirements on the content of the APV, including that a written action plan must be in place. There is a requirement that when the APV is to be prepared, the employees must be involved in the preparation of the APV. The Danish Working Environment Authority has prepared a *guide on APVs,* which may be helpful in this work. It may also be advantageous to use the templates prepared by industry associations and others, which are specifically aimed at the specific work functions performed at festivals.

8.4.6 Organisation of health and safety work (AMO)

In all companies where 10 or more employees work for an employer, cooperation on health and safety must take place in a health and safety organisation (AMO). This also applies to employees working at festivals.

In the case of construction and civil engineering work carried out wholly or partly at a temporary workplace, such as a construction site at a festival, cooperation on health and safety must take place in an AMO at the external workplace when five or more employees work for the same employer at the external workplace and the work is carried out for a period of at least 14 days.

For more information about AMO, please visit the Danish Working Environment Authority's website at www.at.dk.

8.4.7 Instruction, training, supervision and first aid

At festivals and music events, it is important that employees and volunteers receive thorough training and instruction so that they can perform their work in a safe and responsible manner. It is always a good idea to spend time instructing volunteers properly in the tasks they are to perform, especially if this involves work that the volunteers do not do on a daily basis. It is not recommended to allow volunteers to use dangerous tools, such as angle grinders or circular saws, unless they have experience with these from their everyday work or training. Lack of experience combined with

insufficient instruction, knowledge and supervision can make them more prone to accidents than others.

Training and instruction must be adapted to the nature of the work and the individual's abilities. This applies to skills, age, routine, etc., and it is up to the employer to use appropriate means to ensure this.

The employer must ensure that effective supervision is carried out to ensure that employees and volunteers perform their work in a safe and healthy manner. Supervision means that the employer or a representative of the employer inquires into and inspects that the work is actually being carried out in a safe manner, including that training and instruction have been adequate.

Supervision must also include checking that the planned health and safety measures are suitable and possible for the employee or volunteer to use. Finally, supervision means that any errors or shortcomings in the way the employee or volunteer performs their work are pointed out and corrected.

The employer must ensure that employees and volunteers who have been exposed to violence have access to psychological first aid. This applies both when they have been directly exposed to violence or have witnessed it.

The employer must also appoint persons to be responsible for first aid. The extent to which individual employers at the festival need first aid measures, including psychological first aid, depends on a specific assessment. See the Danish Working Environment Authority's website for more information.

8.5 Accidents

The risk of an accident at work can arise in many places in connection with the establishment, running and dismantling of a festival.

For example, there may be accident risks when setting up and dismantling stages, tents and similar structures, where the work in a number of contexts resembles work on a construction site. There may be a risk of falling from scaffolding or lifts, operating cranes, hoists and other machinery, or risks associated with traffic and driving on the festival site.

Another obvious area of accident risk is the prevention of collisions when the event is being set up and later dismantled. Ensure that there is proper separation of moving and walking traffic, e.g. by means of markings and signs that clearly show where moving transport is taking place. Extra caution should also be exercised when driving in connection with waste sorting in camping areas after the festival.

Accident risks can also arise in eating and serving areas, e.g. in connection with food preparation, where there is typically a risk of cuts from knives, burns from hot kitchen appliances such as cookers, deep fryers, etc., and scalding from contact with hot and boiling food. Preventing these accidents is mainly a matter of good workplace design and helping employees and volunteers to adopt safe working practices from their very first shift.

Also be aware of the risk of acute strain injuries that can occur when driving and handling items such as kegs, heavy lighting, sound and stage equipment, or other heavy objects. Ensure that there is suitable technical equipment for handling heavy objects and a good surface that makes transport easy and safe.

Loose or exposed cables, pipes and similar items in work and traffic areas pose a risk of falls, and inadequate lighting increases this risk. Regularly check the areas for the risk of falls and trips and ensure good lighting in walkways and work areas that are used at night, e.g. in camping areas for guests and access routes to eating and serving areas.

Accidents can also occur as a result of, for example, inadequate lighting in work areas that are in use at night or in camping areas for guests.

Another obvious accident area at festivals is the separation of pedestrian and vehicle traffic. Festivals often involve many simultaneous work functions, where it is important to ensure that the interaction between the functions does not pose a risk of accidents. See more on the Danish Working Environment Authority's website.

8.5.1 Reporting accidents at work

Under the Occupational Injury Insurance Act and the Working Environment Act, employers are obliged to report any accident at work if an employee is injured while performing their work.

The employer must report an accident no later than 14 days after the first day of absence if the accident has resulted in the injured person being absent from their usual work for one day or more in addition to the day of the accident.

Employers are also obliged to report accidents at work that have not resulted in absence if the accident is deemed to give rise to entitlement to benefits under the Industrial Injuries Insurance Act, including, for example, payment of medical expenses, compensation for loss of earning capacity, compensation for permanent injury, etc. See more on the Danish Working Environment Authority's website.

8.6 Psychological working environment

The psychological working environment in connection with festivals and music events will typically be relevant in relation to protecting employees, including volunteers, against offensive behaviour, violence, threats and traumatic incidents.

Mentally stressful situations can arise, for example, when dealing with guests under the influence of alcohol and when there are many guests in a small space.

Mentally stressful situations can also arise in connection with serious accidents, violent incidents or robbery, and can occur when employees/volunteers witness such situations or are directly involved in them.

Employees/volunteers who work at music festivals for long periods of time may also be exposed to risks to their mental health due to heavy workloads and time pressure.

8.7 Noise

Protecting employees/volunteers from hearing damage caused by noise is an obvious focus area in connection with festivals and music events. Employers must be aware that the general rules on noise in the workplace have also applied to the music and entertainment industry since February 2008.

This means that employers must protect employees/volunteers from hearing damage if they work in or around noisy environments. This will typically apply to stage crew, security personnel and other employees close to loudspeaker systems, e.g. at refreshment stands, stalls and similar locations, as well as in connection with the setting up and dismantling of stages and tents where noisy machinery is used.

8.8 Other areas

8.8.1 Act on smoke-free environments

In addition to the Working Environment Act, the Danish Working Environment Authority is responsible for supervising compliance with the Smoke-Free Environments Act. This also applies during festivals.

At festivals, smoking will not be prohibited in most cases, as smoking in connection with work takes place outdoors. However, if a tent is used as a serving area and has a roof and walls on all sides, the smoking ban applies. This applies regardless of the material the tent is made of or whether there are holes in the sides of the tent, etc.

If, on the other hand, there is no roof, canopy or walls on all sides, it is not considered an indoor catering area. In such canopies or enclosures, the organiser may therefore allow smoking.

8.8.2 Accommodation for employees

When you, as an employer, offer accommodation to one or more employees, you are obliged, as of 1 July 2025, to ensure that the accommodation is healthy and safe to live in. This follows from Act No. 1445 of 1 December 2024 on the accommodation of employees. The obligation applies to accommodation at workplaces, but also to other places such as villas and summer houses, as well as accommodation solutions such as pavilions, containers and caravans.

The accommodation provided for employees must meet the following requirements:

- Access to WC and drinking water
- Drainage for waste water
- Protection against moisture, cold, heat and noise
- Sufficient daylight and windows that can be opened for ventilation
- Possibility of heating and satisfactory indoor climate
- As a general rule, no more than two persons per living room

However, certain types of accommodation are exempt from the rules, including service accommodation, offshore installations, drivers covered by the Driving and Rest Time Regulations, and accommodation covered by certain collective agreements.

8.8.3 Special events

Many festivals and music events include various events. Typically, these events will change from year to year, and new health and safety aspects will therefore arise that festival organisers must consider. Responsibility for health and safety lies with the employer or employers who employ staff at the event.

Some events involve a number of special health and safety issues. These may be events that include amusement park equipment such as Ferris wheels, pyrotechnic events or exhibition and demonstration equipment with pressure vessels.

Against this background, it will often be advantageous for organisers to obtain an overview of the rules that may apply during the event and ensure that the necessary permits, etc. are obtained well in advance of the festival. It may therefore be a good idea to engage in dialogue with the police, the local authority and, if necessary, the local supervisory centre of the Danish Working Environment Authority in advance.

8.8.4 Further information

The Danish Working Environment Authority's website contains further information on the provisions of the Working Environment Act, guidelines on specific areas, information material and details of authorised working environment consultants.

Additional information is available from the Industry Associations for Health and Safety at www.bfa-web.dk.

9.0 Traffic and transport conditions

This chapter covers the following topics:

- **Planning and organisation of traffic and transport conditions**

9.1 Planning and organisation of traffic and transport conditions

The relevant road authority and the police are responsible for making decisions on traffic measures, e.g. for the purpose of regulating traffic.

Planning of traffic and transport conditions in connection with major events must be included in the organisation of security.

Traffic planning must ensure safe and flexible traffic flow to and from the event and ensure that the public, employees, media personnel, artists, rescue personnel, police, etc. are directed to and have access to the correct entrances/gates. Please refer in particular to Chapter 6 on fire safety and emergency response.

The organiser should consider whether, depending on the circumstances, there is a need for campaigns targeting the public to use public transport or shared transport in order to reduce other traffic pressure.

The event website should provide information about parking spaces, shuttle buses, directions/routes and an overview of railway stations, taxi ranks and bus stops, etc. With regard to shared transport options, reference should be made to relevant carpooling platforms.

Train, bus and taxi companies must work with the organiser to consider their own planning procedures to ensure that they can safely handle the potentially increased number of passengers in connection with the event. The organiser should therefore inform the relevant train, bus and taxi companies in the municipality concerned about the event.

It is important that the companies responsible for transporting the public also consider plans in the event of, for example, delays, cancellations or breakdowns in transport. Consideration should also be given to sufficient entrances and exits from stations, guidance for passengers on platforms and steps, footbridges and tunnels, stopping places, etc.

Careful planning should be made for handling the increased passenger numbers, e.g. in the form of temporary queuing systems and communication of travel information via loudspeaker systems, signage and information staff.

In this context, consideration should be given to signage in several languages, including English and German.

Consideration should also be given to establishing a road network at the site, emergency routes and alternative routes if entrances/gates and the rest of the road network at or outside the event site become blocked.

Traffic planning must incorporate measures that prevent or hinder access to areas with large numbers of people. Read more in PET's guide "Think about terror security at major events", which can be found on PET's website.

The organiser should draw up a separate plan for traffic and transport conditions, which must be enclosed with the application to hold the event to the local road authority. Such a plan may, for example, contain a description of:

- Signage on public roads, railway and bus stations, etc.
- Vehicle access
- Traffic control
- Vehicle parking and organisation of parking facilities
- Emergency routes
- Conditions for pedestrians, cyclists and people with reduced mobility
- Organisation of driving conditions and construction of temporary roads at the event site
- Conditions for trucks and other vehicles at the event site
- Public transport arrangements, including train, bus and taxi services.

The organiser must investigate which authorities are most often involved in the planning of traffic and transport matters. It is often necessary to involve, for example, the local authority, the Road Directorate and the police.

It will therefore often be appropriate to discuss the relevant traffic and transport conditions with the relevant authority at an early stage of the planning process in order to ensure ongoing coordination with the rest of the event, including in relation to the layout of the event venue. For larger events, it will be advantageous to appoint a traffic planning coordinator who can handle cooperation with the local authority, the Danish Road Directorate and the police.

See Appendix 6 for further information on traffic and transport conditions.

10.0 Weather

This chapter covers the following topics:

- **Planning before the event**
- **Monitoring the weather situation during the event**

10.1 Introduction

The weather in Denmark is rarely life-threatening, but severe and dangerous weather can occur. Severe weather, combined with other unfortunate circumstances, can be a contributing factor in causing situations to take a turn for the worse. Even in less critical situations, the weather can affect participants, event helpers and employees. As an organiser of outdoor concerts, festivals and other events, the weather is an important parameter that should be taken into account both in the preparations and during the event itself.

Some weather phenomena occur locally and come more quickly and unexpectedly than others. Examples of weather phenomena that occur quickly and can have a major impact on an event are rain showers, which may be accompanied by gusts of wind or heavier showers with strong gusts of wind, lightning, thunder, cloudbursts or hail. These unexpected weather phenomena will require more attention from the organiser and active decision-making and, if necessary, active intervention.

10.2 Weather conditions affecting outdoor events in the summer months

10.2.1 Wind

Wind can pose major challenges for organisers in terms of protecting guests, staff and the festival site from injury. Strong winds and gusts can cause pavilions, market umbrellas, tents, stage covers and similar structures to come loose. Loose objects can fly around the festival site and pose a risk to both people and equipment.

The layout of the site can affect the strength of the wind. If tents and stages are set up in narrow streets, close to trees or other obstacles, this can create a tunnel effect, which will cause extra strong winds.

If the site cannot be secured against flying objects such as branches, signs, etc., the organiser must cancel the event.

Wind can also stir up dust and dirt in the area. This can be annoying if it gets in your face, but it does not pose any danger. However, strong winds and gusts can negatively affect the participants' experience of the event.

Wind is divided into two categories: average wind and gusts.

Average wind:

In weather forecasts, it is always average wind that is described. Average wind is the average wind speed measured over 10 minutes. The strength of the average wind is determined by the location and movement of low and high pressure areas, and their movements occur over hours or days, meaning that the average wind changes over a longer period of time. Conversely, this means that strong average winds are often a long-lasting phenomenon.

Wind gusts:

Wind gusts are only mentioned in weather forecasts if they are much stronger than the average wind speed or if they occur in connection with squalls. However, wind gusts can be seen in many apps, on websites or provided by weather information providers. Wind gusts are the maximum

wind speed measured over 3 seconds. Wind gusts occur suddenly and can knock things over almost without warning.

As an organiser, you should therefore be particularly aware that strong gusts often occur in connection with heavy rain showers, cloudbursts or thunderstorms. On hot, cloudless summer days, gusts can occur during the afternoon without being associated with shower activity. However, strong gusts can also occur when it is generally windy.

Useful information about wind speeds

- Below 6 m/s
  - Fine weather
- Steady wind 5.5-7.9 m/s
  - Fine weather – dust and paper blow around
- Fresh wind 8.0-10.7 m/s
  - Windy weather – rubbish blows around
- Strong wind 10.8-13.8 m/s
  - Pavilions are moving – some tents need guy ropes
- (Strong) gale 13.9-17.1 m/s
  - Tiring to walk against the wind. Pavilions fly around – tents need guy ropes*
- Strong gale 17.2-20.7 m/s
  - Difficult to walk against the wind. Twigs and branches are broken off
- Gale 20.8-24.4 m/s
  - Large branches break – roof tiles are blown off

Light structures may be affected by strong winds. As a rule of thumb, if the wind increases by 20%, the forces on tents etc. will increase by approx. 45%, and if the wind increases by 30%, the forces will increase by approx. 70%.

Good advice for organisers:

- Be aware of the wind restrictions of temporary tents and buildings in relation to their construction:
  - Make a list of the structures erected for the event and note the wind speeds at which action is required.
  - It is important that responsible persons are appointed who are instructed in monitoring and know what to do if they are activated
  - The structures may only be used under the wind and weather conditions for which they are approved in accordance with their certification
  - Structures and buildings that cannot withstand the wind conditions must be cleared and dismantled
- Be aware of strong gusts of wind:
  - If strong squalls, lightning, thunder, cloudbursts or hail are mentioned in warnings or forecasts, this is a sign that there will also be strong gusts of wind
  - Ask your weather provider for information about gusts and how strong they may be, or check apps or websites.
- Make sure that wind-sensitive items are secured:
  - If the venue cannot be secured against flying or falling objects, such as branches, signs, etc., in strong winds or gusts, the organiser should cancel the event.

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    - Be aware that the layout of the site may cause wind to be stronger in some places.
    - Put extra pegs and guy ropes on tents in advance.
- DMI wind and gust warnings can be received free of charge by email – contact epost@dmi.dk
- Please note that general information about wind and gusts can be found at dmi.dk or in the DMi app.

Advice from the organiser to participants:

- Protect your face from dust and dirt
- Make sure that light, tall and wind-sensitive items are securely fastened
- Put extra pegs and guy ropes on tents – preferably well in advance
- Seek shelter, but be careful with small tents where you cannot see if a large object is flying towards you
- Drink extra water, as strong winds can increase evaporation from the body.

10.2.2 Rain

Many participants fear rain as the most annoying weather phenomenon. Large amounts of rain occur every summer in Denmark.

Rain is basically divided into two different types – showers or persistent rain. Rain showers are often short and intense and can occur many times during the day. Persistent rain, rain or day rain will often be larger areas of continuous precipitation moving across an area, and it will rain for longer periods.

Large amounts of precipitation can turn an area into a large muddy field that is heavy and dirty to walk on. In front of stages, mud can make it difficult for the audience to stand firm, which poses a major risk in a tightly packed crowd. Furthermore, mud can cover sharp objects. Damage can be mitigated by covering the area with material such as straw or wood chips or by laying down road plates.

Rain:

Rainy weather is caused by large weather systems such as low pressure and fronts, which can bring persistent rain over large areas. This type of rain is not necessarily particularly heavy, but as it can last for hours, the total amount of precipitation can be significant. Heavy rain for several days in a row is not uncommon and can cause flooding and muddy lawns and squares. Similarly, prolonged periods of rain can cause the groundwater level to rise, leading to rapid flooding.

Rain showers:

Rain showers are most common in the summer months but occur throughout the year. In showery weather, showers will typically come and go with periods of calm in between. Both the intensity and frequency of showers can vary greatly, and showers can be accompanied by strong gusts of wind, cloudbursts, hail or thunder. In the hours after heavy showers, there may be localised flooding.

Cloudbursts:

Cloudbursts can occur in connection with heavy showers, which are often accompanied by lightning and thunder, possibly hail. Cloudbursts are usually short-lived, but can typically produce 15-30 mm of water in 30 minutes, which will quickly flood an area or parts of an area. Especially if there are differences in elevation, the water can run down to the lowest part.

Hail:
Hail often accompanies heavy rain showers and thunderstorms. Hail can destroy or deform materials such as tents, stalls, canopies, cars, etc. These heavy hailstorms often cause a significant change in temperature. In connection with hailstorms, the temperature can thus drop by 5-10° and locally by 12-15°.

Useful information about rainy weather
Small amounts of rain can be coped with rainwear or raincoats, but if the intensity exceeds 1 mm/hour, many people will start to seek shelter.

- Below 0.5 mm/hour
    - Rainwear is not necessary, but recommended for longer stays outdoors
- 0.5-1 mm/hour
    - Rainwear necessary
- 1-2 mm/hour
    - Good rainwear, raincoat or umbrella required. Most people seek shelter

Good advice for organisers:

- Be prepared to deal with large amounts of water at the venue
- It is important that someone is designated to keep an eye on the weather.
- Ensure that employees and helpers can do their jobs sheltered from the rain or that there are places where they can seek shelter at times
- Be aware that access to and from the venue may be difficult
- Ensure that electrical appliances are protected from water
- Please note that the situation may change significantly for the audience due to rain and cold weather. The wet surface will make it difficult for participants to sit down.
- Please note that DMI's warnings about rain, rain showers and cloudbursts can be received free of charge by email - contact epost@dmi.dk
- Please note that general information about the weather, including rain, showers and thunderstorms, can be found at dmi.dk

Good advice from the organiser to participants:

- Dig trenches around your tent
- Do not walk barefoot in the mud – you do not know what sharp objects may be hidden there

10.2.3 Showers with strong gusts of wind, lightning and thunder
The Danish summer weather is often characterised by showers, where light summer rain showers come and go with periods of calm weather in between. Showers typically form due to surface heating and are therefore prevalent over land during the summer months. Heavy showers and showery weather are weather conditions that can present many challenges in a short period of time. Both the intensity and frequency of rain showers

can vary greatly, and heavy showers can be accompanied by strong gusts of wind, lightning and thunder, cloudbursts or hail.

Strong gusts of wind

In heavy showers, e.g. with cloudbursts, lightning and thunder, there will often be gusts of wind that are 40-50% and in some cases 100% stronger than the average wind speed. Strong gusts of wind will affect tents, signs and other loose objects. In addition to being stronger, gusts of wind can often loosen objects that are fixed in place.

If cloudbursts, lightning or thunder are mentioned in the forecast or warnings, it is important to check for the possibility of strong gusts of wind.

Lightning and thunder

Thunderstorms with lightning and thunder can be dangerous, and although the probability of being struck by lightning is small, it is important to respect lightning and thunder.

The summer months are peak season for festivals and outdoor concerts, but also peak season for lightning and thunder in Denmark. 85% of all thunderstorms in Denmark occur in the summer months of June, July and August, while in May and September they account for approximately 5%.

There are two types of thunderstorms: front thunderstorms and air mass thunderstorms.

Front thunderstorms

Frontal thunderstorms form in connection with a frontal zone, which is usually a large contiguous area of clouds, rain and thunder that passes by within a few hours.

Air mass thunderstorm

Air mass thunderstorms are local thunderstorms, which can be divided into cold air thunderstorms and warm air thunderstorms.

Cold air thunderstorms are classic Danish summer weather with showers, some of which will be heavy thunderstorms. The showers are typically heaviest at the end of the day.

Heat thunderstorms form locally due to local heating. In summer, heat thunderstorms typically occur in the late afternoon and dissipate in the late evening. There will often be few clouds or clear skies in the morning, and it will easily be perceived as a good summer day without any danger, but in the afternoon, when it gets warmer, clouds can form and quickly develop into thunderstorms. The risk of this type of thunderstorm is greatest in the afternoon and evening hours.

Useful information about thunderstorms

Frontal thunderstorms and thunderstorms in cold air can be seen and tracked on radar images over Denmark, where both their movement and intensity can be monitored.

Heat storms cannot always be seen on radar in good time, and if thunderstorms are forecast for the afternoon, you should monitor radar images continuously, e.g. at dmi.dk.

The distance to a thunderstorm can be calculated by counting the number of seconds between the lightning and the thunder. For every three seconds, the distance to the lightning is approximately 1 kilometre, e.g. 15 seconds ~5 km.

When lightning strikes, in most cases the current runs the shortest direct path to the ground. There is therefore an increased probability that lightning will strike tall, conductive objects, but there are no guarantees. Lightning can strike randomly within a critical radius of approximately 100 metres, so you can never be 100% sure.

Lightning can also travel along power lines, cables, water pipes or tree roots.

During thunderstorms, it can be dangerous to be outdoors, but also indoors in tents and pavilions. Therefore, precautions should be taken when many festival guests quickly seek shelter indoors due to rain and thunder.

Advice for organisers:

- If thunder is forecast, keep an eye on radar and lightning on websites such as dmi.dk or in apps.
- It is important to appoint responsible persons who are instructed to monitor the weather situation, including radar images.
- Keep an eye on the clouds in the sky if there is a risk of thunderstorms. Thunderstorms do not come without clouds, but can arise very quickly, especially in the afternoon on a hot day.
- Ensure that employees and assistants do not remain in tall towers or metal structures (the functions should preferably be able to be performed from other locations)
- Ensure that assistants do not stand upright in open areas, e.g. car parks
- Do not work with large, electrically conductive objects – e.g. fences, railings, taps or appliances connected to the electricity and telephone networks.
- Keep your distance from metal masts in concert tents. If lightning strikes the festival site, these tall metal masts are at high risk of being hit. Be aware that thunderstorms are often accompanied by heavy rain, which will cause many people to seek shelter, so it may be difficult to stay clear of masts and cables in concert tents.
- Please note that DMI's warnings about lightning, thunder and heavy rain can be received free of charge by email - contact epost@dmi.dk
- Please note that general information about the weather, including lightning, thunderstorms and cloudbursts, can be found at dmi.dk

Good advice from the organiser to participants:

- Seek shelter before the thunderstorm is directly overhead.
- The best shelter is in a car/bus. In the camping area, a small low tent is safer than a tall tent with long metal poles.
- Do not seek shelter under trees, especially not a single tree, or in a tent under a tree.
- Do not touch large, electrically conductive objects such as fences, railings, taps or appliances connected to the electricity and telephone networks.

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- Avoid swimming in open water.
- DO NOT lean against the metal masts in the concert tents. If lightning strikes the festival site, these tall metal masts are at high risk of being struck.
- Put down any flags and umbrellas so that you are not holding a lightning conductor in your hand.
- If the thunderstorm is directly above you and you have not reached shelter, crouch down with your head between your legs, if possible, without endangering yourself or others. Make yourself as small as possible with as little of your body touching the ground as possible

10.2.4 Temperature, sun and drought Temperature

The Danish summer weather can vary greatly. Many Danes consider temperatures between 20 and 25 degrees Celsius to be warm. On a hot summer day, the body can have difficulty getting rid of heat, which is exacerbated by high humidity and high night-time temperatures.

At dmi.dk, you can find tables showing how the combination of current air temperature and humidity feels. High humidity reduces the body's ability to get rid of heat, which is why high humidity feels much warmer, and the figures show that this becomes significant when the temperature exceeds 28°. Heatstroke is a condition in which the body's temperature rises sharply, and the incidence of heatstroke is linked to temperature and humidity.

On hot summer days, the body sweats and fluid loss is high. Dancing, walking between different stages and the tent camp, and not least the consumption of alcohol cause additional fluid loss. If the body becomes too dehydrated, you will feel very unwell, and in extreme cases it can be life-threatening.

Good advice for organisers in high temperatures:

- Set up covered areas that provide shade
- Make sure that plenty of drinking water is available
- Ensure that there is enough water for participants to wash/rinse themselves.
- Please note that DMI's heatwave warnings can be received free of charge by email – contact epost@dmi.dk
- Please note that general information about the weather, including heat waves, can be found at dmi.dk

Good advice from the organiser to participants in high temperatures:

- REMEMBER to drink plenty of water
- Seek shade from time to time

Sun and drought

The sun can shine for many hours in Denmark in the summer because the country is located so far north. The sun's rays contain UV radiation, which is harmful to the skin. At outdoor events, participants are outside for many hours, and on cloudless days, sun protection is therefore necessary for everyone. Sunburn due to lack of or insufficient sun protection is common at outdoor music events.

Useful information about the sun's rays

UV index	UV radiation intensity	Protection
Less than 3	Low	Not necessary
3	Moderate	Hats and clothing
6	Tall	Hat, clothing and shade
8-10 (not in Denmark)	Very high	Hat, clothing, shade, possibly indoors
Greater than 10 (not in Denmark)	Extreme	Stay indoors

In Denmark, the UV index reaches a maximum of 7 in the middle of the day in summer and less than 1 in the winter months.
In addition to the direct effect of the sun on participants, a prolonged period of sunshine with little or no rainfall can cause the top layer of soil to dry out. This means that light soil and dust are not bound and can therefore be stirred up by the wind or by participants walking and dancing.

Small amounts of rain will help to reduce dust, dirt and, not least, the smell of urine. The organiser can minimise dust nuisance by watering briefly.

Good advice for organisers in sunny and dry weather:

- Set up areas with cover
- Ensure that sun hats and sunscreen are available for purchase
- If necessary, provide dust masks during long periods of dry weather Dust can be temporarily bound by watering the areas

Good advice from the organiser to participants in sunny and dry weather:

- Move into the shade between 12 noon and 3 p.m. if the UV index is 3 or higher
- REMEMBER sun protection: clothing, hat, shade, sunglasses and sunscreen
- Consider using a dust mask

10.3 Planning before the event

When organising an outdoor event, it is important to consider what the weather is likely to be like and how it might affect the event. The weather may mean that an event has to be cancelled or significantly changed in advance.

The weather must be taken into account during the planning phase. Early in the planning process, it is necessary to base your plans on the weather at the geographical location during the planned season. This can be reassessed in the period leading up to the event itself. The degree of planning varies depending on the duration of the event. For short events, employees, helpers and participants will have had the opportunity to prepare in advance, thus reducing the risk of being surprised by the weather.

When planning, it is recommended to draw up weather plans based on risk analyses and with a breakdown of the individual weather elements. A weather plan can be drawn up with an

escalation plan for the individual weather elements that are relevant to the event, e.g. wind and gusts, lightning and thunder, precipitation and temperature.

For each weather element, categories are established with a description of the tasks associated with the category and a responsible person. The categories could, for example, be normal weather (unproblematic), uncomfortable weather, challenging weather and risky weather.

Please note that wind, for example, can have one effect on one type of tent but a different effect on other types of tents. It is therefore necessary to divide the plans into many smaller plans.

These are only suggestions, and it is important to draw up plans according to the conditions, equipment, geographical location and season in which the event is to be held.

The following aspects should be considered:

- Check what the weather is usually like for that time of year
- Check if there are any special geographical weather conditions
- Local conditions at the site or access routes that may be of significance, e.g. wind and gusts
- Weather risks associated with the event (set limits for when the event can be held safely in relation to individual weather phenomena)
- Where and how to obtain meteorological information
- When and how often meteorological information is obtained
- Weather monitoring (especially if it is a long-term event)
- Establish procedures for dealing with hazardous weather phenomena
- Appoint a person who is responsible for the weather and its impact on the event

It is recommended to obtain weather information from the DMI website or app to ensure consistency internally and with the authorities. When obtaining information, it is worth noting some of the special conditions of weather phenomena and their predictability.

10.4 Monitoring the weather situation during the event

During the event itself, the weather is monitored continuously, and it is important to note any significant deviations from the information obtained in advance. It may be necessary to cancel an event if an unforeseen weather situation arises or if the weather becomes worse than expected.

Organisers may find it useful to:

- Obtain new forecasts and warnings every 12-24 hours
- Monitor radar/lightning every 2-3 hours and, in the event of showers, initiate enhanced monitoring every 10-30 minutes
- Monitor the situation with their own equipment
- Keep an eye on the sky in situations with heavy showers and/or thunderstorms

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- Contact the supplier of meteorological information in the event of unexpected changes

11.0 Installations, sound, light and special effects

This chapter covers the following topics:

- **Installations**
- **Sound level restrictions**
- **Lighting and special effects**

11.1 Introduction

As an organiser, you must ensure that any installations set up in connection with the event, even if they are temporary, comply with the law. Certain types of installations cannot be carried out by just anyone, but require authorisation. This section therefore provides a brief overview of the types of installations that require authorised installers, as well as a number of useful tips on how to ensure the safety of both the audience and employees during installation work.

In addition, there are a number of recommendations regarding stage sound and lighting to help ensure the safety of the audience and employees during the concert.

Finally, there may be a number of safety rules that must be observed in connection with special effects.

11.2 Installations

For safety, health and environmental reasons, selected installation tasks are subject to authorisation requirements. This means that only authorised installation companies may carry out the work in question.

This applies to parts of the electrical, plumbing and sewerage installation areas. We will therefore briefly review the relevant safety and security rules for the individual types of installations that organisers must be aware of.

11.2.1 Electrical installations

Using faulty wiring or electrical appliances can be life-threatening. When installing electrical equipment, including temporary installations, it is therefore important to ensure that the equipment is suitable and intended for outdoor use and can withstand the external influences to which it will be exposed. In general, it is recommended that installations in tents be designed for outdoor use.

The Electrical Safety Act applies to electrical installations (and a number of executive orders in the electrical field, including executive orders on electrical installations, systems and equipment, etc.). Read more about these rules and executive orders on the Danish Safety Technology Authority's website.

Authorised electricians and other installers, such as professional lighting technicians, must of course comply with the relevant legislation when carrying out their work. However, as the organiser, you should be aware of the five good safety tips for temporary electrical installations, which can be found on the Danish Safety Technology Authority's website.

11.2.2 Plumbing installations

Plumbing covers various types of installations, including water, heating, ventilation, sanitation and gas. The following is a brief overview of safety considerations for specific types of plumbing installations. This should be read in conjunction with Chapter 3 on the layout of the event venue.

Water

When installing water installations, it is extremely important to take a number of precautions to ensure that the installation functions optimally in terms of both safety and functionality. Among other things, backflow preventers must be installed in the installations to ensure that the public drinking water supply cannot be contaminated.

The building regulations set out the general rules and functional requirements for water installations. The building regulations also set requirements for the materials used in drinking water installations. Among other things, materials and components marketed for drinking water installations must comply with the executive order on the marketing and sale of construction products in contact with drinking water.

In general, it is recommended that the organiser discuss the drinking water quality with the authorised installer in connection with the establishment of the temporary installations and, in this connection, not reuse pipes and hoses.

Heating

As with water, the building regulations set out the general rules and functional requirements for hot water installations in buildings. With regard to the heating of domestic water, it must be ensured that there is no risk of Legionella growth.

Drainage and sanitation

Building regulations set out the general rules and functional requirements for drainage systems in buildings and on land, including temporary installations. As an organiser, you must be aware of the possibility of accidents involving waste water and consider possible measures in your emergency response plan.

11.2.3 Gas installations and gas storage

F-gas (bottled gas) and gas appliances are very flexible and therefore widely used in connection with outdoor music events and festivals. However, the use of gas can pose a risk of poisoning, fire and explosion, and therefore, as an organiser, you must be aware of safety issues in connection with handling and use and comply with applicable legislation.

However, safety in relation to the establishment and use of gas installations is a technical field, and the installations are typically temporary. Regulations on the use of bottled gas are therefore governed by three different authorities:

- Installations and quality, etc.= The Danish Safety Technology Authority
- Storage and warehousing= The Danish Emergency Management Agency
- Handling of gas cylinders= The Danish Working Environment Authority

Temporary gas installations

Provisions concerning gas systems and gas installations, including temporary gas installations, are found in the Act on Products and Market Surveillance. The Act is accompanied by a number of executive orders,

including the Executive Order on the Safety of Gas Installations. Read more about the Act and Executive Orders on the Danish Safety Technology Authority's website.

Only authorised plumbing companies (or other approved companies) may install, repair or inspect temporary gas cylinder installations. The new gas regulations have made it possible to become a gas distributor on more lenient terms than previously. The new scheme applies to the filling and distribution of gas cylinders with click-on valves with a maximum permissible filling of up to 11 kg. However, installations must still be carried out by approved plumbers.

All installation work is subject to notification and must be reported to the Safety Authority. As the organiser, you must be in possession of an approved certificate before the installations are put into service. The approval covers a comprehensive assessment of all gas installations for the event in question. The certificate must be sent together with the notification to the Danish Safety Technology Authority no later than 21 days before commissioning.

An example of an installation and approval certificate can be found on the Safety Authority's website. Gas appliances may only be installed and used if they are designed for the gas qualities and gas pressures used in Denmark. This means that gas appliances for use in Denmark must be marked with one of these appliance categories and pressures:

Gas type (appliance category) and pressure:

- Bottled gas – low pressure (I3B/P) 30 mbar
- Bottled gas – medium pressure (I3B/P) 2 bar

If appliances are to be used for bottled gas, they must always be marked 3B/P and 30 mbar. If the appliance is not marked as being suitable for bottled gas, do not connect the portable appliance to the gas cylinder yourself. When using gas appliances, always follow the instructions regarding distances to surroundings, combustible materials and similar. In cases where no instructions are available, the minimum distance is 1.0 m from the burner to combustible material. Furthermore, ventilation requirements apply when installing in pavilions or tents with more than 75% of the side area closed. There must therefore be at least 10 cm2 of openings per kW of installed power, distributed over at least two openings for fresh air supply. Pay particular attention to ventilation if several gas appliances are used simultaneously.

Storage and warehousing of gas

The rules for gas storage (technical regulations for gases) are governed by the Danish Emergency Management Agency and are fire prevention rules. Gas storage facilities must be designed in accordance with these rules. A storage plan must be drawn up for the storage of gas, showing storage areas and sheds, etc. that use gas.

It is important that the safety precautions in the technical regulations are followed. These precautions concern the storage of gas cylinders and handling gas cylinders with care. Gas cylinders must not be exposed to dangerous influences such as impact, blows, stress or heating, and they must be secured against tipping, rolling and falling. Users are responsible for ensuring that the equipment used is in good condition and that the instructions for use are followed.

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Storage of gas cylinders in sales areas

Gas cylinders in sales areas only need to meet the above safety rules, and not the other rules in the regulations, if the following conditions are met:

a) A maximum of 1 gas cylinder may be used per heating point/cooking appliance.
b) Gas cylinders used inside sales booths must not have a permissible filling exceeding 11 kg.
c) Any spare gas cylinders must be stored outdoors.
d) Gas cylinders must be secured against collision and placed upright.
e) Gas cylinders with a permissible filling exceeding 11 kg must be placed outdoors, shielded from the public.
f) The total gas storage per 1,000 m^2 of sales area must not exceed 100 gas storage units (equivalent to 100 kg of F-gas).
g) Only one waste container may be placed in or next to each individual sales stall. The container must have a maximum capacity of 1 m^3. Other waste containers must be placed in accordance with the local council and be made of non-combustible material. Waste containers must be emptied at least once a day.

Please note that gas storage in several stalls located immediately next to each other constitutes one storage facility, and the total storage capacity must not exceed 100 kg of F-gas, cf. litra f above.

Storage of gas cylinders in assembly tents

Gas cylinders in assembly tents for a maximum of 150 people must only comply with the general safety precautions and thus not with the other provisions of the regulations when the following conditions are met:

a) There are no more than five installations in each assembly tent, including cooking appliances, etc., portable heaters for F-gas, including the cylinders currently in use.
b) All other F-gas cylinders, including spare cylinders, must be stored in a storage area for gas cylinders that complies with the provisions of the technical regulations.

Gas cylinders must not be placed in assembly tents for more than 150 people. This means that gas-consuming equipment in assembly tents for more than 150 people must be supplied by gas cylinders stored outside the tent and complying with the rules in the technical regulations for gases.

Please note that several stalls using gas and located next to each other may end up constituting a significant storage facility. Only lenient requirements apply for up to 100 kg of F-gas storage per 1,000 m^2 of sales area.

Storage of gas cylinders in places other than sales areas and assembly tents

Gas storage that does not comply with the more lenient rules for sales stalls (see above) must be arranged in accordance with the "general" rules in the technical regulations for gases.

Please note that approval must be obtained from the municipal emergency services if you wish to store more than 264 kg of F-gas.

Handling of gas

The Danish Working Environment Authority, which is the authority responsible for the design, storage and inspection of gas cylinders, has drawn up seven good tips for avoiding accidents with bottled gas:

1. Only use approved equipment that is DG or CE marked and has a Danish manual.
2. Always place gas cylinders in an upright position. Always follow the instructions in the manual on where to place the cylinder.
3. Be careful when changing the gas. Switch off the appliance and close the valve before changing the cylinder. Make sure that the regulator is correctly fitted and locked onto the cylinder valve before switching on. Check the connections with soapy water. If bubbles appear, there is a leak and the appliance should not be used.
4. Remember to close all valves when you have finished using the gas. This also applies to empty cylinders! Always disconnect the cylinder when the equipment is not in use.
5. Keep the equipment upright. Regularly check that the gas hose is not visibly worn or faded by sunlight. If you have any doubts about whether the hose is cracked, replace it with a new one with the DG mark.
6. Check your gas cylinder. If there are marks from impact, blows or cracks in the plastic around the cylinder, or if parts of the plastic are missing, have the cylinder replaced.
7. Do not use gas cylinders or gas appliances that have been recalled by the supplier. Check the Danish Working Environment Authority's website on dangerous products to see which cylinders have been recalled.

Please also note that the authorised company that supplies or installs gas and gas appliances is obliged to instruct a responsible person in how to change cylinders on temporary installations. In addition, the authorised company must affix a label with contact details of the company in question to the appliances once they have been inspected.

11.3 Restrictions on sound levels

Noise can pose a risk to the hearing of both the audience and those working at the event. Noise can also cause nuisance outside the event area, and the noise level must therefore be monitored during rehearsals and while the event is taking place.

It must always be checked whether a maximum noise level has been set for the event area. The environmental authority of the municipality in question is responsible for this. It is also advisable to position the stage so that the sound is directed away from the surrounding areas where most people would otherwise be disturbed.

In order to limit possible nuisance and damage caused by noise, the following measures should be considered in connection with the event:

- Ensure that competent persons with the appropriate equipment assess the sound
- Provide information and guidance on sound effects to employees and the audience at the event

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- Encourage the audience and employees to protect their hearing by wearing ear defenders or earplugs and ensure that these are readily available
- Consider whether, depending on the duration and nature of the event, a hearing protection campaign should be organised
- Consider using delayed sound, which reduces the volume and improves sound quality for the part of the audience standing furthest from the stage.
- Good communication with the sound provider is important. If possible, ask the sound provider for a map showing the sound coverage for the event. This will enable the organiser, in collaboration with the sound provider, to ensure good sound for the audience and reduce sound pollution for neighbours.
- Consider creating areas with low sound levels where the audience can rest their ears between concerts.

11.3.1 Sound policy

The event would benefit from introducing an active sound policy that includes a dBA limit, the use of sound meters, and the availability of earplugs and information for both the audience and staff. We recommend a sound level of 103 dBA, measured over 15 minutes at the mixing desk (Front Of House). Please also refer to Dansk Live's sound policy on their website: Dansk-Live-standard-Lydpolitik-2023.pdf.

11.4 Lighting and special effects

Fireworks, laser lights, other lights and special effects, such as the use of pyrotechnics and stage fireworks, often require permission from the authorities. The use of professional fireworks requires permission from the local emergency services where the fireworks are to be used.

11.4.1 Laser and strobe lights

Laser lights and strobe lights are often used outdoors at festivals, concerts or other large events. When using these types of lights, organisers must be aware of the following.

Laser lights

Laser light can be extremely dangerous to air traffic, as the powerful light can cause eye damage to pilots. In extreme cases, this can have fatal consequences. Rules have therefore been established for the use of powerful laser light outdoors. The rules are described in the Danish Civil Aviation Authority's regulations for civil aviation – specifically BL 3-41 Regulations on the use of laser light equipment for outdoor purposes.

The provisions state that all laser light equipment in classes 3B and 4 is covered by these rules. Ordinary projectors and laser lights in classes 1, 2 and 3A are not covered by the rules. It should also be noted that the airspace is divided into different zones, each with different tolerances for laser light. This means that if you wish to use laser light in the classes covered within 18.5 km of an aerodrome approved for night flying, you must obtain a dispensation from the Danish Transport, Construction and Housing Authority. It is therefore recommended that you refrain from shining laser light upwards and dimly over guests.

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Stroboscopic lights

Prolonged use of strobe lighting may cause epilepsy, and warnings should therefore be provided.

11.4.2 Special effects

Many event organisers use fireworks to end an event, and artists often request the use of stage fireworks and pyrotechnics.

Fireworks

Fireworks and other pyrotechnic articles are regulated by the Fireworks Act. The accompanying regulations distinguish between four types of fireworks:

- Consumer fireworks
- Professional fireworks
- Stage fireworks
- Other pyrotechnic articles

Consumer and professional fireworks are further divided into a number of categories:

- Category 1: Fireworks associated with low risk and minimal noise levels, intended for use in physically confined areas, including fireworks for indoor use in dwellings.
- Category 2: Fireworks associated with low risk and low noise levels, intended for outdoor use in physically confined areas)
- Category 3: Fireworks associated with medium risk, intended for outdoor use in larger, physically open areas and intended for use only by professional fireworks operators (the noise level of the articles must not be harmful to health)
- Category 4: Fireworks associated with high risk. (Fireworks for use only by professional fireworks operators)

As the organiser, you must familiarise yourself with any requests for the use of fireworks well in advance of the concert and use competent and authorised personnel (fireworks operators) for advice in connection with the planning and execution.

Stage fireworks and pyrotechnics

In addition to fireworks, artists often use stage fireworks and pyrotechnics to enhance their concerts. Both articles contain explosive substances or an explosive mixture of substances intended to produce heat, light, sound, gas or smoke, or a combination thereof, by means of exothermic chemical reactions.

Stage pyrotechnics can be divided into two categories:

- Category T1: Low-risk stage fireworks intended for use only by persons authorised as stage or party fireworks operators.
- Category T2: Stage fireworks, which are intended for use only by persons approved as stage or party fireworks operators

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- When applying for a permit to use stage or party fireworks, you must ensure that the supplier has a Danish pyrotechnics number and that they are authorised to sell stage fireworks.

There are two corresponding categories of pyrotechnic articles:

- Category P1: Other pyrotechnic articles associated with low risk
- Category P2: Other pyrotechnic articles intended for use or handling only by persons with special knowledge of the articles in question

As an organiser, you must familiarise yourself with the use of pyrotechnics and ensure that the people (pyrotechnicians) who will be handling them have the necessary skills.

Read more about fire safety and fireworks in section 6.6.

12.0 Food safety

This chapter covers the following topics:

- **Legislation and guidance**
- **Who is responsible?**
- **Registration of food stalls with the Danish Veterinary and Food Administration**
- **Self-monitoring**
- **Layout of stalls**
- **Precautions when handling food**
- **Food safety**

12.1 Introduction

At large music events, it is not normally permitted to bring your own food and drink. A number of food stalls will therefore often need to be set up to cater for the number of participants. Each stall must have at least one person in charge who ensures that food legislation and other legislation is complied with.

12.2 Legislation and guidance

The purpose of the provisions in food legislation is, among other things, to ensure that food businesses produce food in a hygienic manner so that consumers do not become ill from eating the food they buy or are served.

Food businesses, including food stalls at music events, must comply with the rules laid down in food legislation. The legislation may include:

- The Food Regulation (EU)
- Hygiene Regulation (EU)
- Labelling Regulation (EU)
- National rules in, among other things, the authorisation order and the hygiene order.

The Danish Veterinary and Food Administration's website provides guidance on the rules for operating a food stall, including general information on starting and running a food business.
If the owner of a stall is in doubt about the rules, it is always a good idea to check the rules in advance. If you cannot find the answer on the website, you can contact the Danish Veterinary and Food Administration.

12.3 Who is responsible?

If you make and sell food, you are a food business.

It is the responsibility of the food business to comply with the rules and ensure food safety. This means that there must be a person responsible for the stall who ensures that the rules are followed.

The responsible person is responsible for ensuring that the stall is set up in such a way as to enable the desired activities to be carried out and that employees have the necessary knowledge to store and handle food correctly, e.g. in connection with heat treatment, and that they are aware of any allergens, etc.

12.4 Registration of food stalls with the Danish Veterinary and Food Administration

A stall (cart, tent or similar) that sells food is a food business and must, as a general rule, be registered with the Danish Veterinary and Food Administration.

However, there is a de minimis limit that food stalls at festivals, for example, may be covered by if they only hold occasional events. Occasional events may take place for up to approximately 30 days per year to be considered a food business below the de minimis limit. The approx. 30 days can be individual days, shorter periods or a combined period.

Even if the food stall does not have to be registered, it is still considered a food business. The person responsible for the stall is responsible for ensuring that the food from the stall does not make people ill and must, for example, ensure that the food is stored correctly, that it is prepared in a hygienic manner, etc.

A stall (cart, tent or similar) where food is regularly prepared or sold at markets or festivals – e.g. on a fixed day of the week – does ***not*** fall under the concept of "occasional events". The stall must therefore be registered with the Danish Veterinary and Food Administration. See more about starting, operating and registering food businesses on the Danish Veterinary and Food Administration's website.

Both stalls that do not need to be registered and stalls that do need to be registered may be subject to inspection visits by the Danish Veterinary and Food Administration. All registered food businesses must display a smiley sticker.

12.5 Self-monitoring

Self-monitoring is therefore the way in which food businesses ensure that consumers do not become ill from the food that is produced or sold. The manager of the food business is responsible for ensuring that food safety, among other things, is under control. Self-monitoring provides the person responsible for the business with a tool to ensure that this responsibility is fulfilled, while also raising awareness of what is critical in terms of food safety.

> **Definition**
> Self-monitoring is the measures that every food business introduces and follows to ensure compliance with the requirements of food legislation that are relevant to the business's activities. Self-monitoring consists of good working practices, written risk analysis, procedures and documentation of self-monitoring carried out.

All food businesses must ensure that they have good working practices in areas that have an indirect impact on food safety.

Good working practices may relate to areas such as cleaning, pest control, waste management, personal hygiene and staff training. Other examples of good working practices include the handling of allergens and the use of suitable packaging for contact with food.

Some food businesses choose to write down their good working practices in order to keep track of them. This can be particularly beneficial for businesses with several employees, but it is not a requirement.

In addition to good working practices, food businesses must also have a written self-monitoring programme, including risk analysis. The requirement for written self-monitoring and the scope of

This will depend on the type of business and food activities, and there may be exceptions to the requirement for written self-monitoring if the business falls below the de minimis threshold. Therefore, read more about the rules for self-monitoring on the Danish Veterinary and Food Administration's website.

12.6 Layout of stalls

The layout of stalls must be appropriate for the type of food sales or processing that takes place. For example, there is a difference between selling packaged food and also processing food. Food must be stored in a hygienic manner and protected from contamination, e.g. from pests.

Stalls must be of a suitable size for the activities carried out and must be designed in such a way that they do not cause hygiene problems. The layout of the stall must also ensure sufficient capacity at times of peak demand so that, for example, food requiring refrigeration can be stored correctly until use.

The stalls must be designed so that they can be adequately cleaned and, if necessary, disinfected. Businesses that cannot be closed at night and which, for example, have counters and serving facilities in the open air may need to clean everything and, if necessary, disinfect before reopening.

There must be space for shoes, clothing, bags and similar items to be stored in a separate area of the stall, away from food, e.g. in a cupboard, box or similar.

12.6.1 What materials should be chosen when setting up the stall?

When selecting materials for floors, walls and fixtures in stalls, it is important to consider where the material will be used and what influences it will be exposed to. The material selected must be hygienically sound and may differ for a warehouse used for food storage and premises used for food processing.

Floors, walls, ceilings and doors

Food must be protected from contamination. An outdoor stall often requires a roof to protect against rain, sunlight, birds and pests. Sometimes a roof is not necessary, e.g. if only packaged food is sold, such as packaged ice cream or water.

The stall can also be set up in tents or using permanent walls.

When choosing materials for the interior of the shed, it is important to choose materials that do not accumulate dirt and are easy to clean. If the surface is too uneven and rough, a lot of dirt will accumulate that cannot be removed by normal cleaning. For walls and ceilings, for example, a strong plastic or similar smooth material would be suitable.

In most cases, it is a good idea to have solid floors for the sake of the employees, but also because it makes cleaning easier. In case of rain, it can quickly become difficult to move around in the mud. If it is very dry, there is a risk that dust will be stirred up and end up in the food. The floor of the booth must be cleanable to the extent necessary, even during production. In areas where

Where food is produced, flooring that is easier to clean than flooring in areas where food is handled, repackaged, etc. will be required. There are many types of flooring available on the market. Suitable materials for flooring include surface-treated wood, concrete tiles or vinyl, plastic tiles and similar materials.

It is also a good idea to raise the solid floor off the ground, e.g. with wooden pallets, to prevent grass, dirt and water from getting between the floor joints.

Tables and serving counters

Work tables, serving counters and similar items must be easy to clean. It is therefore important that the material used for the tables is smooth and washable, e.g. stainless steel or Formica. Wooden tables can be covered with a heavy wax cloth or heavy plastic that can be easily washed and dried.

12.6.2 What facilities should be available in connection with the stall?

How big should the stall be?

This depends on the activities that will take place in the stall, including how many people will be catered for if food is to be prepared. A stall must always be large enough and laid out in such a way that it can be cleaned properly and that food can be handled and stored without risk of contamination. This means, among other things, that raw ingredients must always be processed and stored separately from ready-to-eat food.

Water and washing

Food stalls must have access to sufficient supplies of water of drinking water quality. Water must be available for hand washing, cleaning, etc.

There must be access to hot and cold water of drinking quality depending on the activities of the business, e.g. for food preparation, washing food and hands, and cleaning. Hot water is normally required if the business handles and sells perishable, unpackaged food, but not necessarily for very simple processing such as heating and selling sausages. In most cases, it will be sufficient to have hand washing facilities in the form of a water tank with running water and direct drainage to a waste water tank.

Several sinks may be required for washing food, washing dishes and washing hands. The requirement depends on the nature and scale of production, the possibility of separating food preparation and dishwashing in time, and whether single or double sinks are required.

In stalls where food is prepared and where the event lasts for several days, the water supply may be either access to running water from the mains or from a water tank containing water of drinking water quality. In a stall where there is only limited handling of food, e.g. if the stall only sells beer and water and, for example, ready-made sandwiches, access to running water of drinking water quality from a water container/water tank is considered sufficient.

If waste water is not discharged to an existing sewer or waste water network, it must be collected in a waste water tank or a bucket that is emptied as required.

Storage space

There must be sufficient storage space for food and packaging. This applies to dry goods, refrigerated goods and frozen goods. If the storage areas are located outside the shed, walkways should be established so that the goods can be retrieved in all weather conditions without, for example, dragging mud around or getting the food wet. Food must always be stored protected and raised above the floor or ground. Storage space may be a container or a closed tent with a floor. Storage space must be protected against pests.

Staff toilets

Staff should normally have access to a toilet during their entire working hours. Depending on the type of business, access to a public toilet or a toilet in another business may be sufficient. However, it may be a good idea to have separate staff toilets. This is because staff in food businesses are required to maintain good personal hygiene. If staff use the same toilets as other festival guests or volunteers, there is a risk of infectious diseases being transmitted to kitchen staff, which in turn means a risk of food contamination and food poisoning.

Waste containers

There must be a sufficient number of waste containers available in a stall, regardless of whether food is being prepared or not. Waste should be removed regularly during working hours so that it does not accumulate, and taken to the festival's waste container/waste collection point. This applies to all types of waste, including food waste, packaging and similar items. If the stall is to remain on the festival site overnight, waste should always be removed before the stall is closed for the night to avoid pests.

Materials and items that come into contact with food

Materials and objects that come into contact with food must be intended for this purpose, e.g. plastic bags used to package food or tubs used to wash salad. It must therefore be ensured that the materials are labelled with information stating that they are intended for food use. They may, for example, be marked with a glass and fork symbol. In addition, information must be obtained about any restrictions on the use of the materials. Restrictions on use may be indicated in the instructions for use or on the labelling of the material or object.

12.7 Precautions when handling food

12.7.1 Points to note when handling food

There are a number of precautions and considerations that employees must be aware of when handling food. Food must be prepared, handled and stored under conditions that protect it from contamination and prevent it from becoming unfit for consumption.

Receiving control

The person responsible for a food business, including a food stall, is responsible for ensuring that the food received is of good quality. If there is anything wrong with the food or it has not been transported at the correct temperature, the goods should be returned to the supplier.

Storage of food

Food must be stored at temperatures that do not pose a risk to food safety. The storage temperatures indicated on the food labels must be observed. If no storage temperature is specified, perishable food must be stored at a maximum of 5°C. However, certain perishable foods must be stored at a lower temperature, e.g. fresh fish must be stored at a maximum of 2°C.

It is important that food is kept sufficiently separated in the refrigerator so that it does not contaminate other food.

Deep-frozen food must be stored at a maximum temperature of -18°C. If the food needs to be defrosted before cooking, this must be done in a tray or similar in the refrigerator so that condensation or meat juices do not drip onto other food.

The temperature requirements also apply during transport.

Preparation

When heat treating food, the product should generally be heated to a temperature of at least 75°C throughout the food or to a combination of time and temperature with a documented equivalent effect. It is not necessary to measure the temperature in all products, but some initial measurements may be taken so that guidelines can be drawn up on how individual products should be prepared.

Some products must be prepared and served immediately, while others may need to be kept warm until they are sold. When keeping food warm, it is important that the temperature throughout the product is at least 65°C at all times to prevent the growth of bacteria.

Heat-treated perishable foods must be cooled as quickly as possible. Normally, cooling after heat treatment should be carried out in such a way that the temperature falls from 65°C to 10°C within a maximum of 4 hours. The food must then be stored at a maximum of 5°C.

If necessary, use the calculation programme Safe Food on the Danish Veterinary and Food Administration's website for help with safe heat treatment, heat retention and cooling.

Sale and serving

If perishable food is stored outside the refrigerator for more than 3 hours, there is a risk that customers will become ill from the food. Therefore, bread with toppings, cakes with cream and whipped cream, salads and similar items should be taken out of the refrigerator shortly before sale or serving. Hot dishes should be sold as soon as possible after preparation. However, if it is possible to keep the dishes warm at a minimum of 65°C, they may be sold, e.g. until the stall closes for the night.

Washing up, cleaning and disinfection

Cleaning and, if necessary, disinfection of equipment and fixtures should be carried out as required, but at least once a day. In the case of an open stall, cleaning is necessary before opening. Disinfection should only be carried out after thorough cleaning. It is particularly important to disinfect kitchen utensils and tables when preparing raw meat and fresh fish. Kitchen utensils can be disinfected by pouring boiling water over them, for example. If a stall

uses proper tableware, it is recommended that it be washed in a dishwasher with a rinse water temperature of at least 80°C.

Pests

Pests such as mice and rats can be attracted to places where food is prepared or stored. Pests can transmit serious diseases to humans, such as Weil's disease. It can be difficult to protect a stall against pests, as the materials used to construct a stall, such as a tent tarpaulin, are not pest-proof. If the stall is to remain on the festival site overnight, it is therefore important that all food is stored in a refrigerator or freezer or in a pest-proof storage facility and that, before the stall is used, all surfaces that come into contact with food are cleaned (see above, under washing up, cleaning and disinfection).

12.7.2 Requirements for staff working in a food stall

Staff training

The person responsible for a food stall must ensure that persons handling food receive the necessary instruction or, where appropriate, training in how to handle and sell food in a hygienic manner.

Personal hygiene

Staff in food stalls must always have adequate facilities for maintaining adequate personal hygiene, including washing and drying their hands. It is important that everyone who handles food is aware that it is very important to wash their hands frequently with soap and water – and always after using the toilet. Staff must also know that they must not be involved in the preparation or handling of food if they have weeping wounds or infectious diseases such as diarrhoea or viral infections. Some stalls choose to require their employees to wear plastic gloves when working in the stall. If gloves are used, they must be used in a sensible manner. Like hands, gloves can transfer bacteria and other contaminants from one food item to another. At festivals, wristbands are typically used as admission passes. It is important that the tab is cut off close to the wristband fastener so that the ends do not come into contact with food.

Work clothes

Everyone who handles food must wear suitable and clean work clothes. The owner of the stall may provide work clothes for employees. Clothing must be stored in a hygienic manner where there is no risk of contamination.

Illness

Staff must not handle or serve food in a food business if they have or have recently had an illness that can be transmitted via food. Employees must also not have access to areas where food is handled. This also applies if there is a suspicion that they are suffering from or are a carrier of an illness that can be transmitted via food.

Sick employees must notify the person responsible for the business of any illnesses that can be transmitted via food. This applies both if they have symptoms and if the employee suspects that they could directly or indirectly infect other employees or transmit the infection to food.

If an employee is ill or has been ill, e.g. due to the highly contagious norovirus, the person will excrete the virus via vomit and/or faeces. Even if the symptoms have stopped, the virus can still be passed on. Therefore, the employee should not work or be in places where food is handled for at least 48 hours after the symptoms have stopped. This is the period when the risk of infection is greatest.

When an employee reports sick, the company manager may ask whether the employee has symptoms of an illness that can be transmitted via food, including norovirus. This enables the business manager to fulfil their obligation and take the necessary measures if there is a risk that the employee may have spread, for example, norovirus to equipment and food. In this situation, the business may need to reset contaminated areas to prevent the spread of infection.

For more information on precautions and handling in the event of illness, visit the Danish Veterinary and Food Administration's website.

12.8 Food safety

When planning an outdoor music event, it is important to ensure that participants have a good experience in every way. In addition to enjoying the music, participants must also be able to consume food and drink that is not contaminated with disease-causing microorganisms or chemical contaminants – food safety must be ensured.

Find information about food safety on the Danish Veterinary and Food Administration's website. Use the Danish Veterinary and Food Administration's digital toolbox, Sikre Fødevarer (Safe Food), for help and guidance on microbiological and chemical risks in raw materials, risk management and control options for various processes, as well as calculating safe heat treatment, heat retention and cooling.

Disease-causing microorganisms

Pathogenic microorganisms, which can make people ill if found in food, are bacteria such as salmonella and campylobacter and viruses such as norovirus. Food is not spoiled by pathogenic microorganisms. Therefore, you often cannot see, smell or taste them if they are in food. Bacteria and viruses are everywhere. It can be difficult to completely prevent pathogenic microorganisms from ending up in food, but there are many measures you can take to minimise the risk.

Bacteria originate from soil, water, animals and humans. Animal foods, such as meat and milk, are particularly exposed to bacteria from the digestive tract, nose and throat of animals, as well as from their skin, but bacteria can also originate from the feed the animals have eaten or the litter and soil with which the animals have been in contact. The bacteria found on fish and shellfish depend on the bacteria present in the aquatic environment where the fish and shellfish have lived. Vegetable foods such as spices, vegetables, fruits and grain products are particularly exposed to bacteria that are naturally present in the soil or that are introduced into the soil from, for example, water and fertiliser. Pathogenic microorganisms also include viruses, such as norovirus, which causes Roskilde disease.

How do *microorganisms* grow?

Under optimal conditions, bacteria can grow rapidly. One bacterium can multiply to one million in six hours. They can grow at temperatures between 5°C and 65°C, but pathogenic bacteria grow best between 20-40°C. They do not die when frozen, but remain dormant. They are killed when heated to 75°C. Some bacteria can form toxins in food, e.g. if chilli con carne or cooked rice is cooled too slowly. The toxins cause nausea and vomiting or diarrhoea and stomach pains. Many of the toxins can withstand high temperatures and are therefore not destroyed by heat treatment.

The number and type of bacteria in a food product depends on the type of raw material and the ability of the bacteria present to survive or multiply during preparation or in the finished product. The chemical composition of the food, such as its acidity and water content, will have a major influence on which bacteria may be present in the food and to what extent they can grow.

During processing and storage, food is exposed to different temperature conditions during cooling and heat treatment. In some cases, cooking will reduce the number of bacteria in the product.

Viruses do not grow in food, but are usually transferred to food by people with poor personal hygiene. Viruses can be transmitted to others through vomit or faeces. Either directly through person-to-person contact, or indirectly through contaminated food, e.g. sick employees or contaminated water, or via surfaces in the production environment.

Chemical contamination

Chemical contamination can pose a risk to food safety.

Where does chemical contamination come from?

Chemical contaminants relevant to food served from a food stall are primarily natural toxins such as lectins in beans and process contaminants such as acrylamide in French fries or toasted bread. Preventive measures are described in the Danish Veterinary and Food Administration's digital tool. These include soaking and cooking beans properly if canned beans are not used and avoiding overcooking/roasting French fries, bread, etc.

For further information, see Appendix 10 Food safety and chemical contaminants.

How can foodborne illnesses be avoided at large outdoor music events?

To prevent outbreaks of foodborne illness at large outdoor music events, it is important that the physical environment is adequate to maintain good hygiene. The owner of a food stall is responsible for hygiene in the stall, including ensuring that:

- That the stall is set up so that there is enough space for each job
- That the necessary equipment is available (e.g. sufficient refrigeration and freezer capacity)
- That it is possible to clean properly.

In addition, it is also the owner's responsibility to ensure that the people working in the food stall know how to behave so that the food is not contaminated with pathogenic microorganisms or chemical contaminants.

Read about how to deal with staff illness in section 12.7.2. Requirements for staff working in a food stall.

Suspected food poisoning

If you suspect food poisoning or if several people become ill after eating at the same food stall or similar, you should contact the Danish Veterinary and Food Administration or the public health service and, if necessary, the poison information centre if the poisoning is suspected to be caused by chemical contamination.

13.0 Information, communication, etc.

This chapter covers the following topics:

- **Organisation of information and communication**
- **Information sources and methods**
- **Information for the public, employees and authorities**
- **Communication in the event of major incidents and accidents**
- **Press relations**

13.1 Organisation of information and communication

The organisation of information and communication in connection with outdoor music events is an important task and must help to ensure that the public and other attendees are informed about key issues and activities relating to their stay.

Good communication and information are also essential elements in the organisation and implementation of safety measures. The organiser should therefore establish clear and unambiguous procedures in advance regarding what information is to be provided, to whom it is to be provided, and where, when and how the information is to be provided.

Similarly, there should be no doubt as to who in the organiser's organisation has the authority and responsibility for communicating relevant information to the audience, employees, media, artists, etc.

13.1.1 Risks of inadequate and poor communication

Poor communication and inadequate information can lead to inappropriate reactions from the audience, managers, employees, authorities and partners in important situations. At the same time, *irrelevant, outdated* and *ineffective* information may cause recipients to fail to respond to important information because it does not catch their attention or because the messages are lost in the crowd.

Unclear and incomprehensible information can also lead to misunderstandings and misinterpretations, as well as inappropriate reactions or directly unintended actions. Finally, inadequate communication can lead to rumours, anger and frustration.

As an organiser, you should therefore strive to ensure that the information provided before, during and after the event is always *up to* date, *relevant*, *clear* and *easy to understand*, as well as tailored to the recipient, so that it is effective and the risk of misunderstandings, misinterpretations and rumours is minimised.

13.2 Information sources and methods

The organisation of good communication extends from general details about the event, such as:

- The music programme and artists
- Layout of the event venue and stages
- Location of facilities, food stalls, sanitary facilities, meeting places
- Practical information and rules and regulations

to emergency needs to provide:

- Important announcements, e.g. concert cancellations, etc.
- Instructions in the event of major incidents and emergencies

Certain information will naturally only be relevant and necessary to provide during the event itself. The organiser must ensure that adequate and comprehensive information is provided to the audience, employees, artists, media, etc. in good time prior to the event regarding how to get to and from the event, where to go upon arrival, ticket types, accommodation, sanitary facilities and catering, rules of conduct, etc., and consider how to inform the public if the event or parts thereof are significantly changed, shortened or cancelled.

Communication about safety and security before, during and after the event should also be organised and coordinated in collaboration with the communications department. Responsibilities are divided so that the safety and security experts define what they want to achieve with the message and the communications department is responsible for ensuring that this is done in the best possible way using the relevant channels.

For further information on this topic, please refer to Appendix 11 Information, communication, etc.

14.0 Audience

This chapter covers the following issues:

- **Good audience management**
- **Audience profile and norms within a group**
- **The role of employees in relation to norms**
- **Good tools for audience management**
- **When the audience is young**

14.1 Good audience management

Outdoor music events and concerts want to attract an audience and ensure that they have a good experience. An essential element of this is that the audience feels safe and secure throughout the event.

When many thousands of people gather for a concert, the crowd itself can pose a significant threat. The movements and collective strength of the audience can lead to dangerous situations, as it can be difficult for individual audience members to assess the overall force and dynamics of the crowd. The desire to get close to the stage and the performers can lead to inappropriate pushing and shoving, while falls and pressure can lead to oxygen deprivation if individuals are lost in the crowd.

To avoid danger and injury when large crowds gather, organisers should ensure that the behaviour and movements of the crowd are closely and effectively monitored.

14.1.1 Definition

As a concept and tool for ensuring safety, crowd safety management has gradually gained acceptance at many festivals and large concerts. American professor John J. Fruin has defined crowd safety management as follows:

> *"Crowd safety management is the systematic planning and supervision of orderly movement at a gathering of people."*

Crowd safety management should therefore involve a concrete assessment of the appropriate methods for handling large crowds in an area before it is put into use.

This includes, among other things, an assessment of:

- The size of the crowd and the expected density
- The intoxication level and condition of the crowd upon arrival and departure
- Procedures for access control
- Expected types of activities and group movements in the area and in connection with concerts

14.1.2 The audience as the focal point

In general, conditions relating to audience behaviour and crowd management are central to safety considerations. They are therefore also included in the assessment of the safety measures described in many of the other chapters of this guide.

Following on from these general considerations, we will now look at a number of issues that directly relate to assessing audiences and their behaviour, as well as how to manage them as a group.

For further details on the layout, capacity and facilities of the event venue, please refer to Chapter 3 on the layout of the event venue. For further details on access control, please refer to Chapter 4 on fences and barriers, and for further details on good and effective communication, please refer to Chapter 13 on information and communication.

14.2 Audience profile and norms within a group

When a large crowd gathers and you want to manage it well, there are two important factors that you, as the organiser and safety officer, must consider:

- The profile of the crowd
- The norms of the crowd

14.2.1 The crowd profile

The crowd (or audience) profile is a description of the guests you expect to attend the event. In other words, a comprehensive description of who they are as individuals and how they are likely to react in certain situations.

Questions for clarification

When assessing the crowd profile, it is advantageous to investigate the following issues concerning the expected audience in advance:

- ***How will the audience arrive at the event?***
  This may have an impact on how entrances should be positioned or how traffic conditions should be planned.

- ***What is the background and nationality of the guests?***
  This may have an impact on the language used to communicate with guests.

- ***What age group will be attending?***
  This may affect how experienced your audience is in terms of attending concerts, and whether you should expect them to make their own way to and from the event. Age also has an impact on the responsibility you take on as an organiser and is therefore an important factor in the overall safety setup.

- ***What is the gender distribution?***
  There can be a significant difference in the distribution of men and women from concert to concert. This has practical implications in terms of toilet facilities and what is purchased at the bar, but also in terms of how much space guests take up. Men tend to take up more space than women, both physically and behaviourally, so it is important to bear in mind that a venue that can accommodate 10,000 guests for a concert that attracts mostly women may be able to accommodate fewer for a concert that attracts mostly men.

- ***What do guests want to achieve by attending the event?***
  As an organiser, you should investigate why your guests have bought tickets for the event. Some festivals can sell out before they announce their music programme, while others only start selling tickets in earnest when they announce specific artists. This can be used to determine what guests want to experience when they arrive, which in turn makes it easier to predict how they are likely to move around the venue.

In general, this work involves identifying who your audience is likely to be. There will not necessarily be any definitive answers to this question, so you should spend some time researching relevant factors relating to your audience profile, their views and interests, and perhaps consult with colleagues in the industry about their experiences.

In any case, you should be aware that there are likely to be people in the audience with disabilities or in wheelchairs whose freedom of movement is restricted. In this regard, particular attention should be paid to ensuring that any special seating areas for these individuals are designed and located in such a way that they have a clear view and do not cause unnecessary inconvenience or alienation for participants with disabilities.

14.2.2 Crowd standards

The second essential element of good crowd management is understanding crowd norms. A norm is understood as the common behaviour of a group. It is well documented that people in large groups adapt to common behaviour when it fits in with what they themselves want to achieve. It is therefore important that organisers do their homework before the event and familiarise themselves with the group behaviour they can expect from the audience and in relation to the individual concerts. This can be done by talking to fan groups, following social media, watching video clips from other events, reading literature about your audience or seeking out other events with a similar audience.

By understanding your audience's norms, you can better support their experience and thereby create a greater sense of community. Appendix 1 provides more information about how people in groups tend to have norms and how you can actively use this in your work with good audience management.

Study your audience's concert behaviour

One of the things you should investigate in advance as an organiser is how the audience is expected to behave at certain concerts. If you are not already familiar with key concepts for significant audience activities, such as "crowdsurfing", "stage diving", "waves" and "trains", you should familiarise yourself with them.

Next, you should research and assess what you can expect from your audience in relation to the individual concert – for example, whether they will crowd surf, mosh or form circle pits, or whether they will stand still and quiet.

14.3 The role of employees in relation to standards

It is important that all employees know their exact duties in relation to working with crowds. Among other things, they must know who has the authority to take immediate action, e.g. to stop a concert if the audience is in acute danger or at risk of injury.

The organiser should always ensure that the safety officer and safety personnel are competent and able to recognise and understand the signals sent by the audience. This enables them to assess what constitutes 'normal' behaviour for the audience so that they can react immediately if activities develop beyond what is 'normal' and pose a general risk to the safety of the audience.

Security personnel should also have a good sense of being part of the community that the audience wants to experience. As described in Appendix 1, people in groups are more likely to listen to people who are perceived as being part of the group community than to people who are perceived as being against the group's norms.

When staff understand what the audience wants to experience and consider themselves to be co-creators of this, there will also be greater cohesion between the audience and security personnel.

Elements that can be included in the assessment of these conditions are, of course, the staff's knowledge of the audience's norms and behaviour, but also how the staff are uniformed and act. A suit or black clothing may, for example, work well at one type of event, but not at all at another.

At festivals and large outdoor concerts, a vest is often considered a good uniform. As an organiser and security manager, you should therefore be very aware that security personnel must strike a fine balance between being an authority figure and a protector of the norms, and that this is reflected in their uniform.

> **Example**
> If the staff's clothing says 'Security', this may seem more distancing to the audience, as they may associate security with a strong and negative authority, than if it says 'Safety'. 'Safety' thus indicates to a greater extent that you are there for and intend to look after the audience rather than being against them.

14.4 Good tools for audience management

There are many elements that can influence audience behaviour. These can be grouped into three main categories:

- Design
- Information
- Staff

These three categories are explained in more detail below.

14.4.1 The influence of the design of the event venue on audience behaviour

A well-thought-out and safe layout of the event venue is essential to ensuring good audience management. Before the audience arrives at the event, the organiser should therefore have established procedures to ensure that:

- Exits are unlocked or open and freely accessible
- Signage and lighting are adequate and in place
- Rescue routes, emergency exits and escape routes are free of obstacles
- Emergency power supply and emergency lighting are working
- Fire extinguishing equipment and any alarms are ready for use
- Loudspeaker systems to be used in an emergency can be heard clearly at all designated locations.

Employees responsible for checking this should be thoroughly instructed.

14.4.2 Entrances and exits

With regard to entrances and exits, it should be ensured that there is adequate lighting and clear signage, that the signage is effective and communicated in relevant languages, and that the signs (if necessary) can be seen in the dark. Read more about entrances in Chapter 3 on the layout of the event venue.

Example

Problems may arise at entrances, for example, if a large number of people try to gain access at the same time and capacity is insufficient (both in terms of dimensions and staffing). If the situation is not handled effectively, this can lead to large crowds with a risk of dangerous and inappropriate situations.

In relation to the public in particular, it is recommended that:

- That the doors are opened in good time (based on an arrival profile drawn up from the profile of the audience) before the event is due to start, and that the audience is informed of this via the website, social media, tickets, programmes, posters or by other means.
- That the flow of audience members is staggered, for example by offering some form of early entertainment that will attract some of the audience at an earlier time than the rest.

It is also important to remember that from the moment the doors open, facilities will be needed, e.g. waste disposal, sanitary facilities, catering, emergency services and security. Also note that when the doors to an event with no fixed seating are opened, some of the audience will tend to rush towards the area in front of the stage. The organiser should therefore plan how the area in front of the stage will be arranged and staffed once the doors are open. If there is a standing area in front of a stage, the entrances should not be opened until the facilities in front of the stage are ready and security personnel are in place.

14.4.3 Ticket policy

Ticket policy can also have a direct impact on the smooth and safe management of the audience. In this regard, the following should be considered:

- If attendance at an event is expected to match capacity, it should be clearly communicated in advance that only those with advance tickets will be admitted.
- If there is more than one entrance, introduce a colour or number coding system for tickets that corresponds to different – and clearly marked – entrances. Also ensure that the audience is distributed evenly between the entrances. (If you are unsure how many entrances are needed in your planning, you can put the event on sale with multiple entrances and merge them later).
- If you wish to check for undesirable effects, ensure that this is clearly stated on the ticket, website and signage upon arrival, and that it is clear what you are checking for. Also ensure that there are enough staff for the task so that there is sufficient flow in relation to the influx of audience members.
- If it is a concert area with fixed seats, all sections, aisles, rows and any seats should be clearly marked or numbered. The numbering should also be visible in the dark and correspond to the information on the ticket.
- When opening the doors, keep in mind that people with standing room tickets often arrive earlier than those with fixed seats. Also, your

audience profile and audience norms can help map out how any queues can be managed.

- You should try to ensure that guests do not rush in, as this can increase pressure at the entrance and thereby increase density and pressure between members of the audience.
- As an organiser, you may want to consider ticketing early arrivals and escorting them in separately before opening the other entrances.

Overall, your access control procedures can be an important factor in ensuring safety at the entrances, but also in shaping the audience's first impression of how the organiser is helping to support what the audience wants to achieve. High levels of stress and dissatisfaction at the entrances will often be reflected in subsequent challenges with the audience.

14.4.4 Movement within the venue

Once the audience is inside the venue, you should have mapped out and considered in advance where, when and how you expect the audience to move around.

Narrow passages between stages or other areas should be given special attention, as they can create bottlenecks and increase density. The same applies to stairs or steps, which can halve the walking speed of the audience.

When mapping where and how the audience moves around the venue, the music programme (if there are several artists) also plays an important role. The same applies to the weather. As an organiser, you should therefore create an overview of where the audience moves and when.

For further information, please refer to Appendix 12 Matrix for an overview of audience movement in the venue.

14.4.5 The influence of information on audience behaviour

Good communication and information before, during and, if necessary, after a music event can be of great importance for safety. This is described in Chapter 13 on information and communication. As an organiser, you should be particularly aware that the effect of communication depends on whether your audience wants to take it in.

Therefore, consider whether communication with the audience includes the organiser in the community, e.g. by using "we" instead of "you".

Also, make sure that the communication indicates that there is a sense of community and a shared goal of achieving a successful event. The tone should be one of trust in the audience and a desire to give them good advice on how they can contribute positively to the community, rather than focusing on the few who are opposed to it.

14.4.6 Staff influence on audience behaviour

The way staff act towards the audience has a major impact on safety. It is the staff who can visibly signal that they are there to support the community spirit that the audience norm promotes. Security staff must therefore understand what their role is in relation to acting as guardians of the norm. This means that when individuals or

small groups behave differently than expected, it is the staff's responsibility to handle this effectively.

14.4.7 Handling norm violations

It is expected that breaches of the norm will be handled, and it will often be the staff who are expected to do so. If staff do nothing, this may result in the audience taking matters into their own hands or the audience viewing the staff's lack of action as an endorsement of the inappropriate behaviour and therefore also considering it acceptable behaviour that they can follow.

This means that staff must be prepared from the outset to act quickly in response to undesirable behaviour. Often, this means clarifying what behaviour your audience tends to engage in that you do not want to see. It is also important to equip staff to intervene in situations involving inappropriate behaviour and teach them how to assess norm violations or undesirable behaviour as objectively as possible.

14.4.8 Focus on good explanation and dialogue

To counteract this tendency, it is important to establish a good, dialogue-based relationship between staff and the audience. Tickets or the website should state how you would like guests to behave.

At the event, staff should engage in positive dialogue with the audience. Staff should take time to talk to the audience and, especially in front of stages and at entrances, show that they are there to help create a good atmosphere and look after the audience.

> **Example**
> For example, you may not want your audience to crowd surf because you want to ensure that other guests do not have their concert experience ruined by people falling on their heads. You should tell guests that crowd surfing is not allowed because it ruins the concert for other audience members.

14.4.9 Dealing with unwanted behaviour

If undesirable behaviour occurs, careful consideration should be given to how you expect your staff to act.

At the same time, it is important that comments from the audience are taken seriously. Staff who receive a comment should visibly engage in dialogue with the guest who is being observed or complained about. By engaging in dialogue, you show the audience that you take the matter seriously.

However, staff should not engage in physical handling of the public, as this may constitute a violation of criminal law, but also because it may be considered violent and is certainly not part of the public norm. Therefore, be patient if a guest needs to be removed, and do so through dialogue. Physical restraint should always be a last resort and may result in criminal liability.

When removing someone, you should also consider the clear consequences for the person being removed (e.g. access to friends, tents, luggage, shared transport home in three days, etc.).

14.4.10 Good experiences with warning wristbands

The introduction of visible warning wristbands has been shown to have a positive effect on the community compared to direct expulsion. Expulsion can damage the organiser's reputation among the audience, as the guest may then feel the need to justify their behaviour to friends and others. They may tell their side of the story in a way that makes the staff appear to have acted disproportionately to what happened and thus not as protectors of the norm.

A warning, on the other hand, can show the guest that you want to teach them how to behave better and that you are willing to explain how you expect them to participate positively in the community. An explanation that the guest often takes on board and typically also passes on to friends, thereby gaining an ambassador for the staff and the community instead of an opponent.

14.5 When the audience is young

When dealing with a very young audience, you have a special responsibility as an organiser.

Experience shows that young audiences tend to be more physically active when they go to concerts.

Physical activity contributes to creating a sense of community and is part of the audience norm for this group. Therefore, the organiser must be particularly aware that young people do not necessarily have enough experience to know when this norm is destructive for them. For example, you may experience a more violent form of moshing at hip-hop concerts with a young audience than at a metal concert with an older audience.

As an organiser, it is therefore important to distinguish between the purpose of the movements and the responsibility that can be expected of the audience itself. When working with a young audience, event organisers should ensure that the crowd safety personnel include individuals with special knowledge of youth environments or with the ability to actively seek out members of the audience and ensure that they are comfortable.

This can be important in relation to internal conflicts among the audience and how to reduce their use of intoxicants, but also simply to ensure that they are comfortable.

If you are working with an audience of children, you should have a plan for how to return them to their parents. This can be during the event, but especially after it is over and they have to leave the venue and find their mum or dad to pick them up.

15.0 Artists

This chapter covers the following topics:

- **Artists and safety**
- **Artists' conduct and responsibility**
- **Information for artists**
- **The artists' area and changing facilities**
- **Arrival and departure**
- **Staff and guests**
- **Safety for artists**
- **Assistance for artists in emergencies**

15.1 About artists and safety

The music and the artists' performances are usually the main attractions at outdoor music events. As the artists are thus the focal point of the event, their safety and possible contribution to overall safety should be taken into account in the safety planning. Artists can contribute to both good and less appropriate audience behaviour and can also be the focus of a lot of attention, which may require special safety measures.

15.2 Artists' behaviour and responsibility

Relevant safety issues relating to the concert should be described in the contract between the organiser and the artists. The organiser should, in good time before the planned concert, go over the safety conditions on and around the stage with the artists (and their staff, if any). It should be made clear to the artists from the start that the safety conditions on the day of the concert cannot be changed.

The organiser should go over the planned concert in detail with the artists before the concert. The organiser must obtain information about whether anything will be thrown into the audience, whether the artists intend to go out among the audience, and whether the audience will be invited onto the stage, etc., so that the organiser has the opportunity to increase preparedness in certain areas during the concert and prevent behaviour that may pose a risk.

The organiser should also clarify in good time whether the artists can use fireworks, special effects or special lighting (e.g. lasers), as the use of these effects may require approval from the authorities. See more on this in Chapter 11.

Finally, artists should be informed of their obligations towards the organiser, the audience and others, including whether the organiser or local authorities have special rules for audience behaviour (e.g. a ban on crowd surfing or other potentially dangerous behaviour).

15.3 Information for artists

Before an event begins, it will often be necessary to inform the artists in writing about the following:

- How the artists can get to the venue, including a map of the venue showing entrances, the check-in point, stages, stage plans, changing rooms, etc.
- A general description of the event, opening hours for access to the venue, soundcheck times, sound checks/line checks, performance times and latest end times, stage layout, technical equipment, etc.
- The event's safety measures and the organiser's safety officer during the artist's event
- Procedure in case of show breaks and show stops
- Information about access passes, driving permits, etc.

15.4 The artists' area and changing rooms

The organiser should ensure that changing rooms and rest areas for artists are safe, weatherproof and well lit. The artists' area should be cordoned off or fenced in so that no unauthorised persons can access it. For larger events, it may be advantageous to erect double fences around the artists' area to prevent unnecessary intrusion. It may be a good idea to consider this from the outset in order to stay ahead of any requirements from the artists.

Consideration should also be given to establishing suitable toilet facilities close to or directly adjacent to the stage.

15.5 Arrival and departure

A plan should be made for how the artists will be received and checked in when they arrive at the stage area, and how and when the necessary access permits will be issued.

To enhance the safety of the artists, special entrances and exits should be established for artists, technicians, etc., so that these entrances and exits cannot be used by the audience. This will prevent crowds from gathering around popular artists and the artists from feeling unnecessarily uncomfortable. Parking for artists should also be separate from audience parking and should be located close to the changing rooms or the stage. If this is not possible, transport or a safe walkway from the parking area to the backstage area must be provided.

It is advisable to have staff available with equipment to transport the artists' equipment and luggage. Where there is a risk of significant public attention, efforts should be made to keep the artists' vehicles completely out of sight of the public.

Extra security personnel should generally be provided for the area if it is likely that the artists will attract considerable attention.

The artists' route to and from the venue should be carefully reviewed with the artists' representatives and staff. At the same time, the arrival and departure times should be as clear as possible. For artists who attract significant public attention, discussions should be held to determine what is possible in relation to other traffic conditions so that they do not leave at the same time as the audience, but either immediately after the concert or wait until later.

15.6 Staff and guests

As the organiser, you should ensure that only relevant staff who are working at the venues in question are granted access to the artists' areas. This applies in particular to stage and backstage areas. The number of employees working with the artists should be kept to a minimum, and specific access permits should be issued in relation to their tasks.

If access is granted to media personnel, guests, etc., it may be advisable to make their access permits location- and time-limited.

15.7 Safety for the artists

Immediately upon the artists' arrival, there should be contact between the event or stage production manager, the security manager and a representative of the artists or the artists themselves. Together, they should review the planned concert and current security conditions and inspect the stage area to ensure that the necessary precautions have been taken and are understood and accepted by the artists. Similarly, the organiser should ensure that the artists understand the communication channels and that they are working properly. In the weeks before arrival and the concert, the artists and their staff should be informed about the organiser's safety measures in relation to the artists. It should also be ensured that the artists are familiar with emergency procedures and know where to find medical assistance.

15.7.1 Show breaks and show stops

The artists should be explained what a show break and show stop are, how they are activated and what they entail.

The show may be interrupted in the following ways:

- For technical reasons (e.g. if the sound fails or equipment breaks down). In terms of safety, this is not a showstopper.
- A show break is a temporary interruption of the show in response to a violation of one or more safety procedures. A show break does not mean that the concert cannot resume shortly afterwards.
- A showstop occurs in the event of an acute danger to human life. It is not expected that the concert can resume afterwards

Before the concert, it should be made clear who can stop the show, and it is also important to make it clear to the artists who they should go to and how if they wish to stop the show for safety reasons.

Example

It is a good idea to have a 'red' and 'yellow' laminated card on a lanyard that clearly shows which member of the security staff can activate the show stop procedure. The card can also be used to visually inform and verify to staff and technicians that there is a show break or show stop.

15.8 Artists' assistance in emergencies

Artists and their representatives can help ensure that the event is a positive and safe experience. Artists must be aware and accept that they should not engage in or encourage behaviour that the organiser has prohibited the audience from engaging in. If the organiser is in doubt as to whether the artist will accept and comply with this, they should either ensure that this is understood or refrain from booking the artist.

It is important that artists are informed that it is not their role to deal with any emergencies. Artists should be briefly instructed on their possible involvement in emergencies

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before the event begins and about who is authorised to involve them in the event of an emergency.

16.0 Evaluation and exercises

This chapter covers the following topics:

- **General information about the purpose and need for evaluation and exercises**
- **When are exercises and evaluations conducted?**
- **Prerequisites for evaluation**
- **Prerequisites for learning**

16.1 Introduction

The following chapter deals with evaluation and exercises. The sections of the chapter discuss both evaluations and exercises, often in context.

It is recommended that exercises be held on an ongoing basis to ensure that the event runs smoothly, and that each exercise be evaluated.

In addition, a final evaluation should always be carried out after the event, involving the relevant actors and authorities.

16.2 General information about the purpose and need for evaluation and exercises

The purpose of practising and evaluating is to enable the organisation to learn about the readiness and capabilities of its internal emergency response team through an experience-based approach. Ultimately, this should help to identify strengths and weaknesses, target and prioritise resources for areas where there are shortcomings, and continue with plans and procedures that work.

The lessons learned from exercises and evaluations make it possible to adjust any inefficiencies, both prior to the event and in relation to subsequent events.

It is important to bear in mind that the purpose of evaluation is to learn from the experiences gained in connection with the conduct of exercises and the event itself with a view to continuous development. Evaluation will therefore be an active and dynamic process in which lessons learned from evaluations must be implemented and incorporated going forward. All planning work should therefore consider how previous lessons learned can be communicated and actively applied.

The purpose of evaluation is not to control people or assign responsibility.

16.2.1 Documentation

To ensure a valid basis for evaluation, it is necessary to document both the exercises and the course of the event itself. Documentation makes it possible to work systematically with evaluation and focus on crucial points or events in the actions and decisions that have been made.

Reliable and valid documentation provides a solid basis for written evaluations that can benefit other actors, especially in connection with incidents, but also when events have gone well. In the latter case, thorough documentation can form the basis for best practice and perhaps demonstrate how effective preparedness prevented an incident from developing.

See also section 1.8 on information management and situational overview for more information on documentation.

To contribute to a systematic and focused approach, it is advantageous to use evaluation forms. These forms can be specified for, e.g., an area, a phase or even an incident.

incident. This helps to identify exactly where a change is needed or which processes are working well.

Points to note in connection with evaluation and exercises:

- Ensure that management is actively involved in the evaluation and exercises
- Involve relevant employees across the entire organisation
- Involve relevant external partners, stakeholders and authorities
- All critical functions/systems are practised and/or evaluated. This includes incidents and near misses
- Collect experience in the form of verbal organisational debriefings and/or written exercise reports or evaluation reports, which result in a series of recommendations
- Ensure consistency between the collection of documentation and evaluation points
- Translation of learning points from exercises/evaluations into action plans
- Involvement of all relevant recipients in learning points

16.3 When are exercises and evaluations carried out?

16.3.1 Types of exercises

Depending on what you want to practise, you can vary the type of exercise. Different types of exercises are suitable for practising different procedures, systems and parts of the organisation. Exercises should focus on learning and development in the organisation and, to a lesser extent, on control. However, exercises can be used for both purposes, depending on how you want to organise your exercises.

The following is a brief description of four types of exercises. The types of exercises are also known by names other than those used here.

Procedural exercises

Procedure exercises can typically be conducted as small exercises without major financial or resource allocations. The exercises are well suited for testing one or more (e.g. consecutive) procedures in the organisation.

Examples

- Alarm/activation exercises: Activation of a specific emergency response (e.g. first aid), measurement of response time, knowledge of the location of the nearest defibrillator, knowledge of communication channels within the organisation
- Testing of equipment, electronics, communication, knowledge and expertise

Dilemma exercises

Dilemma exercises are well suited to focusing on specific challenges or issues. Dilemma exercises can also be used when, for example, an emergency response plan is due for an update and you want to take a critical look at its content.

Dilemma exercises open up discussion and debate, which makes it possible to look at alternative approaches to familiar problems.

Examples

- Event-specific dilemmas (crowd collapse, mass brawls, stage collapse, foodborne illness, sewage overflow)
- Review of the emergency response plan
- Review of crisis communication procedures
- Alignment of expectations between departments and partners

Crisis management exercises

During crisis management exercises, crises are simulated on paper without any marking elements "in the field". Decision-makers assume their usual roles in the organisation, act on the input provided, make decisions based on the input and form an overview of the situation, etc. Decisions are recorded in minutes or documented in some other way, but are not implemented. Crisis management exercises require extensive planning, but are not expensive to carry out apart from the time spent by employees.

Examples:

- Knowledge and use of contingency plans (e.g. in connection with weather conditions)
- Cooperation between decision-makers and coordination of resources
- Information management and situation awareness
- Documentation of actions and decisions

Full-scale exercises

Full-scale exercises are held "in the field" and involve marking and training the personnel who respond to incidents that may occur. These may include fire, injury, cardiac arrest, theft, violence against guests and/or employees, burglary, sabotage, accidents at work, etc. Full-scale exercises are not necessarily large-scale and expensive. They can be conducted by focusing on individual elements/incidents. However, it should be expected that resources will need to be allocated for markings and personnel.

Examples:

- Incident-specific scenarios
- Cooperation in stressful situations
- Testing and training of the emergency response team.

16.3.2 Short- and long-term exercise planning

Depending on the organisation's known (and as yet unknown) needs and development wishes, a short- and long-term planning horizon for exercises can be used. This ensures consistency and allows the organisation's emergency response capabilities to be developed systematically and in a targeted manner.

Based on the organisation's needs and wishes for future development, the following questions should be taken into consideration:

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- What should be practised?
- What does the organisation want to achieve with the exercise?
- Who should participate in the exercise?
- Where and how should the exercise take place?
- How will the organisation collect feedback from the exercise?

16.3.3 Evaluations

The evaluation of an event should take place immediately after – or as soon as possible after – the end of the event. This ensures that all situations, incidents and issues are fresh in everyone's minds during the evaluation. However, the evaluation of an event or exercise begins as early as the planning stage, as success criteria, objectives and indicators for these should be identified in advance of an activity so that the organisation has measurable parameters to evaluate when the time comes for the actual evaluation process.

16.4 Prerequisites for evaluation

Decisions made during the course of major events, regardless of whether they are made in response to an incident or as part of daily operations, are often made in a fast-paced environment and are sometimes based on incomplete information. Such factors contribute to the need for a solid data basis in order to be able to make effective evaluations of events and incidents.

In order for the lessons learned from an evaluation to be translated into action and changed behaviour, it is important that the data on which the evaluation is based provides an accurate picture of the actual course of events. The changes in behaviour should ideally converge in a specific direction, while a misleading or incomplete data basis can give a blurred picture when an analysis of learning points is initiated.

16.4.1 What information should be collected?

Information can be collected before or during the event in many ways, and the collection method should be reviewed and adjusted periodically and according to the phase.

The list below is intended as inspiration and is not exhaustive.

Data sources may include:

- Log from emergency response office
- Log from operations office
- Video surveillance
- Meeting minutes
- Recordings of radio communications
- Log from treatment site
- Completed control forms and checklists
- Daily/shift reports
- Work accident reports

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- Overview of near misses
- Data from social media (images, video recordings, etc.)
- Media monitoring

In addition, evaluation meetings during and after parts of the event (reports/minutes), tape recordings of radio communications, a reporting system for ongoing description of incidents, collection of notes from meetings, completed checklists with notes from staff checks of essential functions and safety measures, documentation system for documenting the course of the event, accidents/incidents and incidents that could have resulted in personal injury or other accidents ("near misses"), as well as documentation of both positive and negative incidents during the event and documentation of health and safety analyses carried out by own staff or by authorities.

16.5 Prerequisite for learning

To ensure that the organisation learns and develops on the basis of its own experience and exercises conducted, it is important that the identified learning points are translated into action.

The organiser should therefore prioritise the preparation of recommendations based on evaluations and the implementation of these recommendations within the organisation. The methods that are appropriate for bringing about change will vary from organisation to organisation, but a general suggestion is to draw up an action plan that sets out which areas (and partners) can benefit from the new knowledge acquired and how that knowledge can be applied in practice.

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Appendix 1: Article on group psychology

Using group psychology for crowd safety management
Translated article: "Using group psychology for crowd safety management"
by Professor John Drury, School of Psychology, University of Sussex

An audience is a specific type of group. Group psychology is therefore essential to our understanding of how audiences behave at large events. Group psychology is also crucial in determining how crowd safety personnel can influence audience behaviour and thereby enhance safety. We must therefore take group psychology into account when managing audiences at large events – both in terms of our understanding of how audiences and guests may behave and how they perceive and respond to crowd management.

In this article, I will provide a quick overview of our current knowledge of group psychology and then briefly guide you on how this knowledge can be used to constructively influence the audience (via crowd safety management).

Group psychology
Think of any group of people. It could be a group of psychologists – which would include me. Or it could be a group of event or crowd safety professionals – which would probably include you, the reader. Or it could be a group of everyone who works with crowd safety – which would include both you and me. With this example, I would like to illustrate that we are all members of a number of different groups.

Over the past 40 years, research in group psychology has shown us that when people are members of the same group, a number of reliable patterns of behaviour emerge. The following description therefore applies to most groups.

When people belong to a group, they are first and foremost more likely to trust each other within the group. This means that they are more likely to both listen to and believe each other more than they would normally. In contrast, a message coming from someone outside the group will receive less attention and will be regarded as an opinion or a view rather than a fact. Therefore, people who belong to the same group are more likely to influence each other in a certain direction. They will also be more inclined to share goals and objectives – which means that they assume that others in the group have the same goals as themselves and that they try to coordinate their objectives.

People in the same group are also more likely to expect support from others in the group. So if the two of us are in the same group and I am in trouble, I will expect you to step in and help me. As a result, people in the same group often feel more secure and stronger when they are together. They are more confident and feel capable of achieving more. People in the same group are also more motivated to help each other and to cooperate.

If you combine these things – mutual influence, shared goals and objectives, extended support and increased motivation to cooperate – then people in the same group are more likely to coordinate their behaviour and actions. This is exactly what we see when an audience behaves as a single entity.

In psychology, we call this situation of group cohesion shared social identity. Such an identity has two parts. First, as an individual, I identify with the group. Second, I see you as a member of the group.

In this way, we are no longer individuals. Groups now mean something in terms of both our perceptions and our behaviour. We can therefore use group psychology in specific activities – think, for example, of effective teams and organisations, sports teams, etc. A significant element of crowd safety management is therefore about understanding and influencing group dynamics and behaviour.

Consider a number of common behavioural patterns that we would like to see in connection with our event. Initially, we would like the audience to coordinate their behaviour with each other, e.g. by queuing – i.e. cooperating. Next, we would like the audience to listen to, understand and accept the information we give them and, most importantly, follow it – i.e. obey. This is more likely when the audience is in the same group with each other and with the staff.

If shared identity can help make an event safer, then the question must be: How do you, as a crowd safety manager, get the audience to share their identity with you?

Create and reinforce shared identity with the audience

There are several ways to use group psychology to achieve a shared identity between the audience and staff, thereby enhancing safety. Here are a few examples.

1. Knowledge of group psychology

Most people are familiar with group psychology in society and cultural life, but many mistakenly conclude that people in groups and assemblies become more stupid and irrational. Staff who work with the public should therefore have at least a basic knowledge of group psychology (e.g. the above) in order to gain an up-to-date and effective understanding of how group psychology really works. A false perception of group psychology (herd mentality and mass panic) can be not only wrong but also downright dangerous.

2. Listen and learn

In order to build a good relationship with the visiting audience, it is necessary to know who they are. We therefore need to listen to them before the event and get to know them. In the industry, this is called an audience profile and often has a strong focus on demographics. Psychologists would instead call this knowledge identity and norms. Norms are the behaviour valued by the group. People will generally be more affirming of the norms of a group they belong to – i.e. they behave more in line with the group's identity when they can identify with the group's values.

Before an event, we must therefore do our homework and research the audience's identity and norms, e.g. by talking to them directly, engaging in dialogue with them on Facebook, or reading literature about different youth cultures. We must then try to work with the group's norms rather than against them. Among other things, we must avoid unintentionally offending the group. For example, if we are familiar with the activity of moshing, we should also be aware of the etiquette and know that the audience typically picks each other up if they fall, and that it is not real violence – but rather simulated violence. Knowledge

This can help us manage a mosh pit – i.e. try to facilitate the group of 'moshers' so that they regulate their own behaviour (i.e. work with their own norms).

3. Achieve shared identity through words and symbols

By using terms such as 'us' and 'we' when addressing the audience, we can contribute to a perception that we are part of the same group. Feel free to use the group's own name for themselves and, if appropriate, their internal language in dialogue with them. And do we call ourselves 'security' (where we risk being seen as an external entity whose goal is to protect the event from the audience) or 'safety' (where we are more likely to be seen as part of the inner circle whose goal is to take care of the audience)?

4. Achieve shared identity through good appearance

Research tells us that the more we show respect for the needs and wishes of the audience, the more our behaviour will be considered reasonable. And the more our behaviour is considered reasonable in relation to them, the more the audience will identify with us. It is almost inevitable that certain procedures will be annoying (e.g. delays or queues), and sometimes it will also be necessary to set clear rules for unacceptable behaviour (e.g. a ban on crowd surfing). We cannot change this, but if we show respect for the audience's needs and wishes – by telling them about the underlying reasons, showing empathy and acknowledging their wishes – we can still build a good relationship with the audience and get them to accept our procedures and rules. Again, it helps to know the audience's needs, wishes and norms in advance so that we can anticipate them. We do this by listening to them and getting to know them well (see above).

5. Use archetypes in the group to gain influence.

Sometimes you will find that the audience is resistant and does not want to accept messages from staff because they regard them as an external authority. In these cases, you should again draw on your knowledge of group identity, which is based on what we have heard and learned about the group. Groups are based on social categories, and the archetype will be the group members who best represent the group in the context. Because they are the best examples of the group's identity, they have a major influence on the group's behaviour and conduct. When there is a need to influence a group, this can best be achieved by communicating your message through these archetypes. A good example of this is using a DJ or an artist to convey the message to the audience. In this way, the message is delivered by someone who is part of the group rather than someone from outside.

Further information: If you are interested in this topic, you can read more about audience and identity research at http://www.sussex.ac.uk/psychology/crowdsidentities/

Appendix 2: Example of risk assessment for a stage

Risk 16: Risk of injury at the Tøfscenen

The organiser is responsible for safety during concerts.

The music event offers a diverse portfolio of artists within different genres. During the event, there will be everything from concerts where a mature audience with calm behaviour is expected to high-intensity concerts where the audience is expected to be very active. The area in front of the stage is designed to accommodate approximately 16,000 guests, with full capacity expected for several of the high-intensity concerts. The aim is to create an enjoyable experience for the audience, and all staff around the stages and at the event in general will contribute to this.

Expected impact of weather on audience density at high-intensity concerts

Warm/sunshine	Overcast	Cold/rainy

Lower audience density = Low risk Medium audience density (= Medium risk High audience density = High risk

The colour codes are indicators of audience density and therefore do not take into account other risks associated with the weather.

Risk factor before risk reduction measures

Probability			RISK		Consequence	RISK	RISK FACTOR
1	Highly unlikely	<10		1	No treatment necessary		1
2	Unlikely	1		2	First aid required		
3	Possible	25		3	Hospital/emergency room treatment		
4	Likely	75	4	4	Life-saving first aid	4	
5	Most likely	>90		5	Fatal		

Risk-reducing measures

1. All stages are covered by a crowd safety plan tailored to the stage and concert.
2. All crowd safety personnel have undergone crowd safety training, which covers relevant issues related to their role.
3. A three-level music stop procedure has been established. The levels allow for a graduated response depending on the situation.
4. Activities such as moshing, crowd surfing and similar are not permitted at the event, and for several years, such undesirable behaviour towards the audience has been responded to with warning wristbands, etc.
5. A barrier system has been established in front of the stage in accordance with industry regulations and best practice.
6. It is possible to leave the area in all directions (180^0) with your back to the stage.
7. The event's situation centre will monitor the activity in front of the stage during the concert, and crowd safety personnel will observe from observation points around the stage.

Risk factor after risk reduction measures

Probability		%	RISK		Consequence	RISK	RISK FACTOR
1	Highly unlikely	<10		1	No treatment necessary		1
2	Unlikely	1		2	First aid required		
3	Possible	25		3	Hospital/emergency room treatment	3	
4	Likely	75	4	4	Life-saving first aid		
5	Most likely	>90		5	Death		

Appendix 3: Example of traffic risk assessment

Risk 5: Risk of collision with pedestrians

In connection with the arrival, staging and conclusion of a major outdoor music event, unusual traffic congestion must be expected in the immediate area, which entails increased risks. Car, bus and train traffic will be taken into account, and special precautions will be taken. Access routes for the public, staff, artists and emergency vehicles will be established. To accommodate some of the car traffic, a shuttle bus service will be set up to and from the five nearest towns. Local taxi companies have been informed about the event, and guests are encouraged to use car-sharing services. Parking facilities will be provided in the form of volunteer parking attendants, sand, wood chips and gravel, as well as construction machinery in case of inclement weather.

Identified risks related to pedestrians and traffic

Maximum permitted speed	Location	Type and extent
10 km/h	Inner and outer areas	Pedestrians within the area do not expect vehicles. Special consideration must be given to pedestrians.
30	Vestergade, Lundvej and Borgvej	Roads in the immediate vicinity of and access roads to parking areas and main entrances to the area. Heavy pedestrian traffic

Risk factor before risk reduction measures

Probability			RISK		Consequence	RISK	RISK FACTOR
1	Highly unlikely	<10		1	No treatment necessary		8
2	Unlikely	1	2	2	First aid required		
3	Possibly	25-74		3	Hospital/emergency room treatment		
4	Likely	75		4	Life-saving first aid	4	
5	Most likely	>90		5	Fatal		

Risk-reducing measures

1. The area around the event site consists mainly of minor urban roads and residential streets with speed limits of 50 km/h and 30 km/h. There is generally good access to pavements and traffic-light-controlled crossings. In the immediate vicinity of a major entrance to the event, there is a major road with a speed limit of 60 km/h. There will be a temporary speed limit of 30 km/h, and temporary speed bumps will be installed in both directions.
2. General traffic will be diverted around the area so that it is primarily traffic related to the event that passes through the area.
3. The event office will regulate which vehicles are allowed to drive in the inner and outer areas and at what times. Larger vehicles are not permitted to drive during peak times. Emergency vehicles will always have access.
4. During the event, the local police will conduct traffic campaigns targeting drink and drug driving, as well as speed checks.
5. A receipt must be provided to confirm that the guidelines for driving on the site have been read and understood before driving permits are issued.

Risk factor after risk reduction measures

Probability		%	RISK		Consequence	RISK	RISK FACTOR
1	Highly unlikely	<10	1	1	No treatment necessary		3
2	Unlikely	1		2	First aid required		
3	Possible	25		3	Hospital/emergency room treatment	3	
4	Likely	75		4	Life-saving first aid		
5	Highly probable	>90		5	Death		

Appendix 4: Legal basis

Non-exhaustive overview of the legal basis that may be relevant in connection with the planning and organisation of a music event (see also www.retsinformation.dk)

It should be emphasised that the overview is not exhaustive, nor can it be expected to be updated after the publication of the safety guidelines. The organiser is responsible for familiarising themselves with the applicable legislation for the specific event. The organiser is also referred to, among other things, to seek information about applicable law on the Legal Information website www.retsinformation.dk.

MINISTRY OF JUSTICE:
Executive Order on Public Entertainment Police
Act
TV Surveillance Act Security Services Act Security
Services Order

MINISTRY OF DEFENCE:
Emergency Services Act
Executive Order on Technical Regulations for Gases

MINISTRY OF BUSINESS:
Electrical Safety Act
Act on Products and Market Surveillance
Fireworks Act
Executive Order on requirements for fireworks and other pyrotechnic articles
Executive Order on the import, manufacture, storage, transfer, acquisition and use of fireworks and other pyrotechnic articles
Executive Order on the Design of Pressure Equipment.

MINISTRY OF EMPLOYMENT:
Executive Order on Safety Signs and Other Forms of Signalling Working Environment Act
Executive Order on the Performance of Work

MINISTRY OF TRANSPORT:
Road Traffic Act

MINISTRY OF SOCIAL AFFAIRS AND HOUSING:
Building Act Planning
Act

MINISTRY OF FOOD, AGRICULTURE AND FISHERIES:
Environmental Protection Act

MINISTRY OF THE INTERIOR AND HEALTH:
Health Act Authorisation Act

Appendix 5: Glossary

AMBULANCE ROUTE: A route established by the police to ensure unimpeded passage for ambulances to and from the scene of an accident or incident, i.e. to keep roads clear and regulate traffic.

EMERGENCY MEDICAL COORDINATION CENTRE (AMK): The function in a region that is responsible for the operational management and coordination of all health services in the event of major accidents or disasters. The AMK is the point of entry, including for communication, for the entire region's health services.

ORGANISER: An individual or organisation that plans and manages the event.

TREATMENT AREA: A facility near the scene of an accident where injured persons who are considered to be in need of emergency treatment and subsequent transport to hospital are taken.

EMERGENCY RESPONSE OFFICE: Function responsible for coordinating emergency response resources, see: situation centre

EMERGENCY RESPONSE UNIT: Any function within the organisation that is part of the emergency response. This may include fire guards, area managers, crowd safety personnel, security officers, etc.

EMERGENCY MANAGEMENT AGENCY: Agency under the Ministry of

Defence. FIRE ROUTE: See "Access route".

BUILDING AUTHORITY: The municipal administration that approves building applications and issues building permits.

CAMPING UNIT: Tent, caravan or other transportable structure such as a motorhome or similar.

CAMPING AREA: An area in the open air designated for use by camping units and associated service facilities such as toilets, bathing and shower rooms, cooking facilities, waste disposal areas, etc. and open spaces.

CARAVAN AREA: Area where caravans, camper vans, motorhomes and similar vehicles are parked.

CROWD COLLAPSE: A situation where a crowd of people falls over each other in an uncontrolled manner.

CROWD CONTROL: Management of crowds using barriers, personnel and design.

CROWD SAFETY MANAGEMENT: Term covering a systematic approach and work with managing crowds safely.

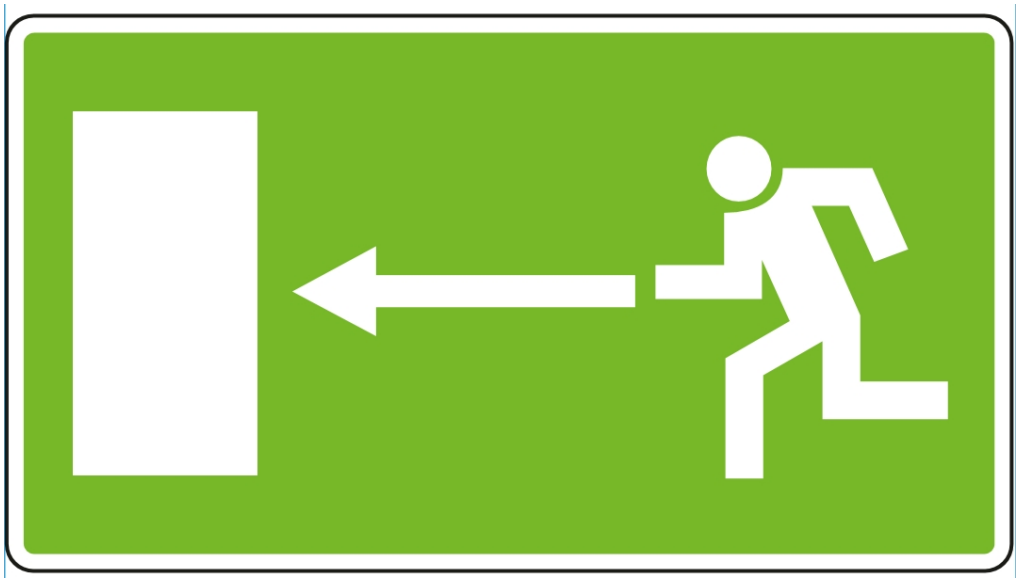
CROWD SAFETY: Collective term for measures relating to crowd safety. This will often involve personnel.

DKV plan: Document describing the operational, control and maintenance aspects of a building. The purpose of the DKV plan is to systematise and clarify the fire safety requirements for the operation of a building in order to maintain the approved level of safety.

F-GAS: Gaseous hydrocarbons that can be liquefied at normal temperatures under pressure, mainly propane and butane and mixtures thereof. Other names are: bottled gas and LPG (Liquefied Petroleum Gas).

ESCAPE ROUTE: A connected system of exits and corridors designed to ensure that people can leave an area safely.

ESCAPE ROUTE SIGN: A safety sign (see fig. below) that provides instructions regarding emergency exits and escape routes. FIG: The sign is green with a pictogram and must comply with the Danish Working Environment Authority's regulations on safety signage.



ASSEMBLY TENT: Tent with mast and guy ropes, steel frames or similar, used as an assembly area.

CLEARANCE AREA: Area designated in camping areas and sales areas to prevent the spread of fire.

INITIAL RESPONSE: The initial response to limit and/or stop an incident from developing. This may involve firefighting, rescue of persons or other measures.

DISTANCE BETWEEN TENTS: The distance between tents is measured from tent fabric to tent fabric.

RESPONSE MANAGEMENT: Response management is the forum for cooperation between relevant managers who, under the coordination of the police, have overall managerial responsibility for the implementation of emergency response measures. The core of the response management team consists of response managers from the police, rescue services and health services.

OPERATIONAL AREA: The entire area in which an emergency response operation is taking place. The operational area is thus the area of work and responsibility of the incident command.

LANDING ZONE (LZ): Helicopter landing site

EMERGENCY SERVICES: The fire department in the municipality where the event is to be held.

RESOURCE PERSON: A person who, due to their education, knowledge or practical skills, can provide information to the emergency response team or otherwise contribute to solving tasks in connection with an emergency response. A resource person may also be a person who has made specific observations that may be relevant to the emergency response.

RESPONSE MANAGEMENT GUIDELINES: Document describing the principles of cooperation between emergency response actors. Known as REFIL.

SALES AREA: A contiguous area in the open air designated for use by sales stalls set up in connection with temporary outdoor events.

SHOWSTOP PROCEDURE: Procedure that explains how music is interrupted in the event of an incident.

SAFETY PLAN: Document describing safety measures and risk assessments
etc. Prepared by the organiser at the request of the police.

SITUATION CENTRE: Function responsible for communication, information management, providing an overview of the status of events and coordinating actions and resources between the organisation's units.

ACCIDENT SITE: The entire area that includes both the location where an accident has occurred and the emergency services' area of operation.

PATIENT SAFETY AUTHORITY: Authority under the Ministry of Health. TENT AREA: The

part of a camping area where tents are pitched.

ACCESS ROAD: A suitable road that allows the emergency services to reach the scene with their vehicles.

TRAFFIC AUTHORITY: Agency under the Ministry of Transport.

EMERGENCY LIGHTING: Illuminated signs at exits in escape routes and lighting of floor areas in escape routes.

PANIC LIGHTING: Lighting that comes on when the normal power supply fails. Panic lighting is intended to enable people to orient themselves during an evacuation so that they can find their way to exits and orient themselves in escape routes.

PERSONAL LIMITATION: The maximum number of persons for which an assembly tent or area is designed and may be used.

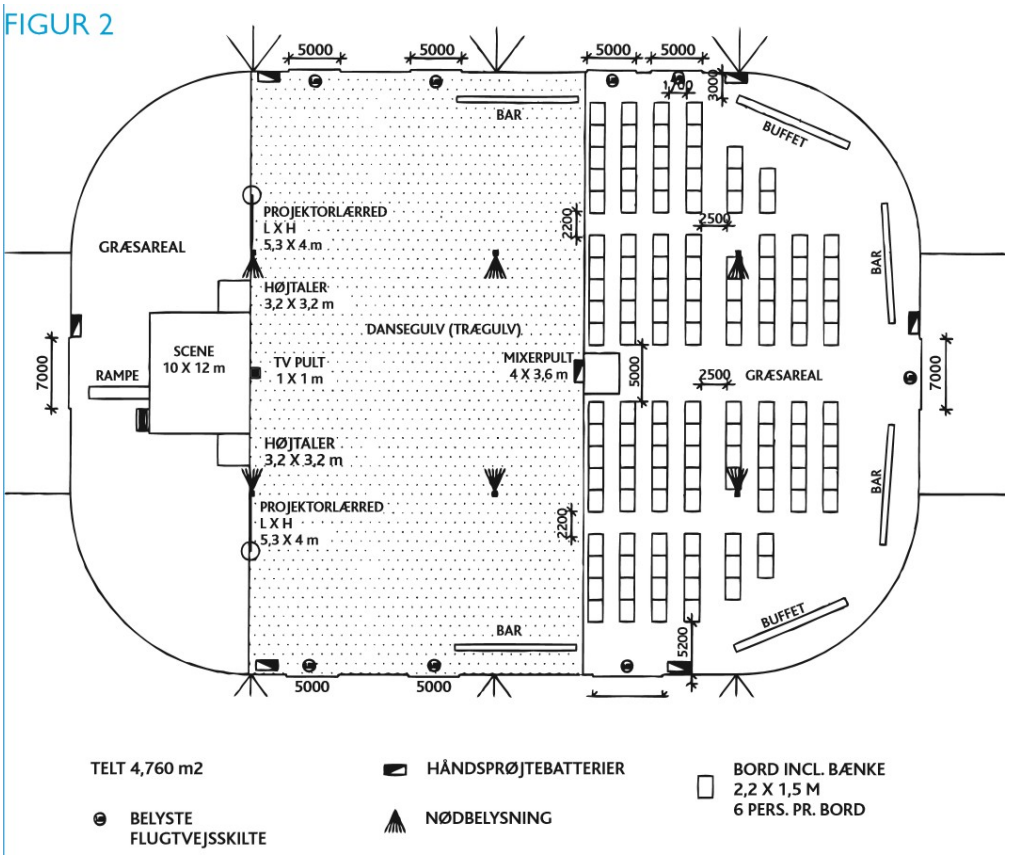
PET: Danish Security and Intelligence Service

THE SITE: The entire area used for the event, including audience areas, backstage areas and service areas.

SEATING PLAN: Plan showing the arrangement of chairs, benches, tables and other furniture in assembly tents.

Note: An example of a space allocation plan is shown in fig. 2

FIGUR 2



Appendix 6: Traffic and transport conditions

This appendix contains information about:

- Signage on public roads, railway and bus stations, etc.
- Road traffic
- Traffic control
- Parking
- Emergency routes
- Pedestrians and cyclists
- Trucks and other special vehicles at the event site
- Train traffic
- Platforms
- Bus traffic
- Caravan areas
- Taxis

1. Signage on public roads, railway and bus stations, etc.

The organiser should assess the traffic implications well in advance of a major event and consider the need for temporary traffic measures.

These considerations should include directions to the event, information about parking, bus/taxi/short-term parking, traffic control measures, road closures/changes to road layouts, temporary removal/covering of traffic signs, temporary speed limits and the erection of other signs to regulate traffic.

The organiser must ensure that there are sufficient road signs, that they comply with the provisions of the road marking regulations, e.g. in relation to reflectivity, and that they are easy to see, even in the dark.

Consideration should be given to whether the signs should also be in English and German and whether actual sign material should be purchased from road sign suppliers.

The relevant road authority and the police are responsible for making decisions on traffic measures for the purpose of traffic regulation, road signage and traffic management. When signs are erected, they must be approved by the road authority.

2. Traffic

It is important to minimise traffic on the event site to reduce the risk of traffic accidents, and, depending on the circumstances, consideration should be given to completely prohibiting traffic during the busiest periods so that only necessary service vehicles (medical assistance, etc.) and emergency and police vehicles have access.

In any case, speed limits should be established at and, if necessary, near the site, and special access with separate signage should be provided for production vehicles to reduce the risk of accidents caused by speeding or large, heavy vehicles.

Plans should be made for how supplier vehicles can enter and leave the site safely during both the set-up and dismantling phases of the event.

Any temporary roads should be or be able to be made usable in all weather conditions with a suitable hard surface for both pedestrians and vehicles. The organiser should consider using road plates, gravel, wood chips or other suitable temporary road material that can limit or prevent damage to the existing ground surface and is suitable for changing weather conditions.

It may be necessary for the organiser to carry out a capacity analysis to ensure the necessary capacity on the roads as well as access and parking capacity. In this connection, the organiser should be aware that traffic jams at entrances/exits to the site may cause traffic congestion with major inconvenience and risks for, among others, the public and general traffic, and may prevent emergency vehicles from reaching the site. Traffic jams may also occur further away from the site on the main road network. In such cases, coordination with the Road Directorate is required.

Consideration should be given to establishing driving permits/parking permits for the public, employees, suppliers, authorities, etc. to prevent unauthorised traffic at the event site, and separate entrances and exits may be established for staff, suppliers, etc.

Methods for clearing traffic jams at the site also require careful consideration and planning. The planning should therefore include alternative roads and access routes at the exit that can be used if entrances/gates, emergency routes and the rest of the road network on the site and outside become blocked or otherwise impassable. All footpaths and roads on and near the site must be adequately lit after dark.

3. Traffic control

In consultation with the road authority and the police, the organiser must ensure that the necessary personnel and equipment are available to manage traffic.

Traffic control within the scope of the Road Traffic Act may only be carried out by the police and other personnel groups covered by the Executive Order on Traffic Officials, Race Marshals and Certain Public Officials' Control of Traffic. Traffic control at large outdoor music events and similar events requires police permission, and there are specific requirements for staff clothing. Further information on traffic control is available on the Danish Road Safety Agency's website.

The organiser should ensure that there is good communication between the persons responsible for traffic control at the event site and outside the site, so that traffic to and from the site can be managed in a flexible and safe manner under all circumstances.

4. Parking

Traffic planning must include how much staff and equipment will be required and what methods will be used for parking (space requirements, traffic controllers, signage, barriers, equipment, etc.).

Consideration should be given to separate parking areas for public traffic, employees, vehicles for disabled persons or other persons with special needs (close to the site), buses, caravans and similar vehicles, motorcycles, bicycles, guests (VIPs), police and emergency personnel.

Additional parking facilities should be planned, either on site or at a suitable location outside the site, partly to accommodate any additional guests and partly to provide extra facilities if the planned areas become unusable.

Parking spaces should generally be located at a suitable distance from camping and tent areas and must not block escape routes and other passageways.

It may be necessary to establish toilet facilities in the parking areas. It is also necessary to be aware that certain vehicles require connection/access to electricity, water, sewerage, etc.

Parking areas must be adequately lit, signposted and marked so that vehicles can be easily found when the event ends or in an emergency.

For larger events, information boards showing the parking area in relation to the rest of the event site should be set up.

Clear signage in the parking areas showing the direction of exit to public roads and any alternative exits should be considered to avoid queues and traffic jams due to uncertainty about the exit conditions from the parking areas.

The organiser and the police may enter into an agreement on the procedure for removing vehicles that are illegally parked or that pose a direct danger or inconvenience to other traffic in the area. Such an agreement may specify who is responsible for removing vehicles that have been illegally parked, renting/borrowing space for storing the vehicles, and the procedure to be followed when the owner/user of a vehicle contacts the organiser/police to have their vehicle returned.

To facilitate the removal and return of cars, consideration may be given to establishing an area for storing illegally parked cars in connection with parking areas. The owner or user is likely to be in the area, which will save time and money for both the car owner and the authorities.

5. Emergency routes

The planning of access and exit routes for emergency vehicles and the establishment of emergency routes at the event site must be carried out in close cooperation with the local authority and the police.

Certain roads at the event site must be reserved for service or emergency vehicles. Emergency routes must allow emergency vehicles to get as close as possible to the scene of an accident or incident.

The roads must be able to bear the weight of emergency vehicles.

The organiser must consult with the local authority regarding the specification of access roads, emergency routes and staging areas and incorporate these into the overall plan for traffic and transport conditions.

It is also important to specify the designated assembly points for emergency vehicles in the plan for traffic and transport conditions.

6. Pedestrians and cyclists

The organiser should plan traffic so that there are safe entrances and exits for pedestrians and cyclists.

Where access on foot is difficult, alternative access arrangements should be considered, e.g. picking up pedestrians in buses.

Special arrangements should be considered for people with physical disabilities.

When planning, entrances and exits for pedestrians and cyclists should not cross parking and traffic areas. Where this is not possible, appropriate traffic control measures should be put in place to prevent accidents when, for example, pedestrians or cyclists cross bus turning areas or similar.

7. Trucks and other special vehicles on the site

As this will be an area that is subject to traffic regulations, it is important to ensure that these regulations are observed, including that the vehicles used are suitable for the purpose. For example, it should be ensured that only vehicles intended for passenger transport are used for passenger transport.

The organiser should ensure that all drivers of a forklift truck or other vehicle requiring special permission are trained and approved for this (have a forklift truck certificate and/or driving licence for the relevant category of vehicle) and that the name of any driver of a rented vehicle is stated on the rental contract prior to driving.

If a forklift truck is hired, the organiser must check that the equipment supplied is in a safe and sound condition before use.

Other special vehicles may also be required on site. These may include tractors, lifting vehicles/cranes or vehicles for delivering equipment around the site.

The use of such vehicles on site must be carefully planned and monitored to prevent accidents resulting from incorrect use and operation of the vehicles or from other simultaneous activities at the event site.

8. Train traffic

The organiser should consult with relevant train operators (e.g. DSB, GoCollective and/or local railways) about laying on special trains or increasing normal capacity to adapt train services to the needs of the event and to limit the need for parking on and off the event site. For an updated list of train operators, please refer to Banedanmark's website www.bane.dk.

The possibility of offering combined event/train ticket packages should be considered. The distance between train stations and the event venue, as well as the availability of bus connections to/from the event, should also be taken into account.

Information about the extent of train services can be posted on trains and at stations/platforms in agreement with the relevant train operators (e.g. DSB, GoCollective and/or local railways).

The organiser should, in consultation with the station manager, consider the possibility of placing service personnel at stations/platforms who can provide alternative transport options to the event.

The organiser should also consult with train operators (e.g. DSB, GoCollective and/or local railways) about the maximum capacity of the station/platform at any given time.

9. Platform

If separate steps are set up for the audience in connection with a major event, these should be staffed.

Staff should wear high-visibility clothing.

Special instructions must be drawn up for this personnel, whose primary tasks will be to ensure safety during train arrivals and departures and to keep the platform edge clear of people.

When trains arrive, their job might also be to guide people to ticket exchange/ticket sales points or maybe straight to the event venue.

During the period from the last train departure in the evening to the first train arrival in the morning, security personnel should be assigned to supervise the platform/platform area.

Depending on the circumstances, access to the platform from the event venue may be through entrance gates with turnstiles or staff to count the number of guests entering the platform to board the train. The counting can ensure that access to the platform can be temporarily stopped so that no more people enter the platform area than there is room for on the train.

The organiser may enter into an agreement with the train operators (e.g. DSB, GoCollective and/or local railways) to have a supervisor stationed on the platform.

The supervisor should assist the train driver when the train departs, be in telephone contact with the control centre and be in contact with the corresponding supervisor at the nearest station.

The supervisor can continuously assess that there are no more people on the platform than the train can accommodate and, in cooperation with staff, temporarily close access to the platform area.

10. Bus traffic

Careful planning of bus and similar arrivals and departures can reduce congestion at the start and end of a major event.

Careful consideration should be given to bus routes to and from the event in consultation with the road authority and bus company(ies). In addition, the legality of shuttle buses must be ensured.

Bus traffic planning must include bus stops, parking areas and access roads to minimise the need for buses to turn around, e.g. by establishing one-way bus lanes. Signs indicating bus stops and departure times should also be provided.

Buses need wide and easily accessible entrances and exits to the special parking areas, as well as large stopping and turning areas.

When planning bus traffic, consideration should be given to whether, after consultation with the road authority and the police, free passage for buses can be ensured.

It may be necessary to provide toilet facilities in bus parking areas.

Following consultation with the organiser, public transport companies and private bus companies will often be able to provide buses for regular service between the local station/bus terminal and the event venue. However, private bus companies must apply to the Danish Road Safety and Transport Agency for a route permit if they are to operate on a specific route with fixed stops for at least three days. In this connection, eight weeks must be allowed for the processing of the application.

11. Caravan areas

The organiser should be aware of whether there is likely to be a need to establish special areas (caravan areas) for motorhomes and similar vehicles, separate from parking for other vehicles.

When locating and designing a caravan area for motorhomes and similar vehicles, the organiser should be aware that such a special parking area should be located close to sanitary facilities.

12. Taxis

When planning traffic, the organiser should take into account the establishment of taxi ranks outside the event site after consultation with the authorities and the local taxi companies.

Appendix 7: Examples of procedures for weather conditions

This appendix describes details about weather conditions that may be useful to know when planning and running outdoor music events.

Examples of procedures

Wind and gusts

Obtain meteorological information about expected wind (average wind) and gusts, as well as wind direction. Wind forecasts are now very accurate for the first 24 hours. This applies in particular to wind (average wind) and wind direction, while gusts are slightly more difficult to predict.

Be aware that wind (average wind) and, in particular, gusts can affect temporary pavilions, tents and buildings. Check whether any warnings have been issued for strong winds, heavy rain or thunderstorms.

Example of categories and escalation scale for part of the site:

- Normal (average wind speed below 8 m/s)
    - Action NN: Monitor forecasts and warnings every 12-24 hours
- Fresh wind (average wind speed between 8 and approx. 11 m/s)
    - Action NN: Monitor forecasts and warnings every 12-24 hours. Be aware of gusts of wind that could make things worse, like in showers.
    - Action personnel: Be aware of loose signs or other tall or light objects
- Strong wind (average wind speed between approx. 11 and 14 m/s)
    - Action NN: Monitor forecasts and warnings every 6-12 hours; follow radar every hour. Be aware of gusts of wind that could worsen the situation, e.g. in squalls
    - Action NN: Pavilions and light tents must be cleared or removed
- Gale (over 14 m/s)
    - Action NN: Monitor forecasts and warnings every 3-6 hours; check radar every hour. Be aware of gusts that could make things worse, like in squalls
    - Action NN: Tents must be evacuated and some must be removed
    - Action NN: Fences, structures and signs must be secured or removed

Rain and showers

Look for weather info on the type of rain and how much is expected, both the total amount and how heavy it's expected to be. Forecasts for steady rain are usually pretty accurate for the first 24 hours. Heavy showers, which can sometimes turn into downpours, often happen locally and aren't easy to predict. In weather situations with heavy showers, weather information should therefore be obtained regularly, every few hours, and should include information on the intensity and frequency of showers. Check whether warnings of heavy rain or cloudbursts have been issued.

Example of categories and escalation ladder:

- No precipitation or light rain 2-5 mm
    - Action NN: Monitor the outlook every 12-24 hours
- Rain 5-10 mm
    - Action NN: Monitor forecasts, warnings and lightning/radar every 2-3 hours

–

    - Action NN: Assess whether more permanent water will accumulate in certain parts of the area. Assess whether wood chips/gravel should be laid down
- Heavy rain 10-20 mm
    - Action NN: Monitor forecasts, warnings and lightning/radar every hour
    - Action NN: Assess whether wood chips/gravel should be laid
- Heavy rain and thunderstorms over 20 mm
    - Action NN: Monitor forecasts, warnings and lightning/radar every half hour
    - Action NN: Assess whether wood chips/gravel should be laid down. Collect water if necessary
    - Action NN: Assess whether employees should be evacuated from certain parts of the area (the area surrounded by trees) Also ensure that no one is in or near storage containers
    - Action NN: The safety manager and incident commanders (ISL POLICE, ISL FIRE) assess whether the event can continue and whether a break is necessary
    - Action NN: Inform the audience of the temporary pause

Thunder

Look for weather info on the chance of thunderstorms. Check if there's a risk of strong gusts of wind with the thunderstorms. When there's a higher chance of thunderstorms, keep checking the weather every few hours.

Example of categories and escalation scale:

- No lightning or thunder mentioned in forecasts and warnings
    - Action: monitor forecasts, warnings and lightning/radar every 2-3 hours
- Lightning and thunder in the area (define, for example, a distance of 10 km from the site)
    - Action NN: Increased monitoring every ½-1 hour of warnings and lightning/radar information
    - Action NN: In the event of an imminent risk of lightning strikes (strikes less than 10 km from the site), evacuate high structures; this must be possible to execute within 15 minutes.
    - Action NN: In the event of imminent danger of lightning strikes at the site (strikes less than 5 km from the site), the public must be informed of the precautions to be taken
    - Action NN: In the event of imminent danger of lightning strikes at the site (strikes less than 5 km from the site), the safety manager and incident commanders (ISL POLICE, ISL FIRE) shall assess whether the event can continue.
- Lightning and thunder over the site
    - Action NN: Increased monitoring every 10 minutes of alerts and lightning/radar information
    - Action NN: The security manager and incident commanders (ISL POLICE, ISL FIRE) assess whether the event can continue and whether a break is necessary
    - Action NN: The audience is advised of a temporary pause

Temperature

Obtain meteorological information about expected daytime temperatures and, during the summer months, the expected UV index for the coming days.

In connection with low temperatures, it is important to compare the temperature with the humidity and wind.

Example of categories (summer) and escalation ladder:

- Cool for summer 15-18°
    - Action NN: Monitor conditions every 12-24 hours
    - Action Service guards: Pay attention to participants sleeping outdoors. Wake them up and make sure they are properly dressed or get into their tents
- Normal summer 18-25°
    - Action NN: Monitoring of conditions every 12-24 hours
    - Action: None
- Hot summer above 25°C
    - Action NN: Monitoring of forecasts every 12-24 hours
    - Action service guards: Encourage people to drink plenty of water
    - Action service guards: Be aware of the fire hazard
    - Action ISL Fire: Assess whether to introduce a ban on the use of open flames or other restrictions

Appendix 8: Definitions

This appendix describes definitions of weather conditions that may be useful to know when planning and staging outdoor music events.

Summer day: Refers to a day when the temperature is 25 degrees Celsius or higher
Heatwave: Refers to a period of at least three days with temperatures above 25 degrees Celsius.
Heatwave: A period of at least 3 days with temperatures of at least 28 degrees
Wind (average wind): Average wind speed over 10 minutes
Wind gust: Maximum wind speed within a short period of time (typically 3 seconds, but depending on the type of measuring device)
Hurricane: Average wind speed exceeds 32.6 m/s **Storm:**
Average wind speed exceeds 24.5 m/s **Showers:** Short-lived
precipitation with a distinct start and end
Cloudburst: Precipitation intensity exceeds 15 mm in 30 minutes
Persistent precipitation (rain, sleet, snow, freezing rain): Precipitation caused by large weather systems that will fall over a longer period of time
Heavy rain: Precipitation exceeding 24 mm in 6 hours (average 4 mm/hour)
Heavy snowfall: Over 15 cm of snow in 6 hours ~ equivalent to 15 mm of precipitation
Snowstorm: Snowfall of more than 10 cm in 6 hours and average wind speed over 10 m/s
Snow drift: Loose snow and average wind speeds over 10 m/s
Freezing rain: Widespread precipitation that forms ice on the surface

Appendix 9: Assessment of the suitability of the event venue

The event venue may be a place that is normally used for music events and therefore already has a number of facilities in place, but it may also be a space that needs to be set up from scratch. A number of different factors are taken into account when assessing whether a particular venue (and any structures and installations at the venue) is suitable for the event in question to be held in a safe manner.

Basic factors that should be considered

- Space, supply and installation conditions in relation to the expected audience size, audience dynamics and duration of the event, etc.
- Already permanent permanentor temporary structures, any backstage facilities and audience facilities
- Access and exit conditions, including emergency response capabilities
- Parking areas or the possibility of establishing such areas
- Temporary camping areas or the possibility of establishing such areas if the planned event lasts for several days
- Neighbourhood relations (traffic, noise and behavioural nuisance, etc.)
- Traffic control of guests upon arrival
- Evacuation of the audience
- Traffic plan for the event

Terrain and soil conditions

- How is the event site located in relation to its surroundings?
- Are there any natural features at the event site that can help reduce noise?
- Are there permanent roads/paving in the area?
- Are the soil conditions even, well-drained and sewered?
- Are there any natural risks/features, e.g. (steep) slopes, soft soil conditions, especially in case of heavy rain, marshy areas, lakes and/or watercourses?

Reference is also made to *the Building Regulations' guidelines on construction requirements for transportable structures.*

Roads and paths

- Is it possible for the expected audience to get to and from the area without any problems?
- Traffic and pedestrian routes, entrances and exits – which routes already exist, and where can new ones be established?
- Are roads and paths adequate and appropriately located? Is there adequate lighting? Is there adequate signage?

When establishing escape routes, see *the Building Regulations' guidelines in Chapter 5 – Fire, Appendix 11: Guidelines for outdoor events, sales areas, temporary installations, temporary accommodation and transportable structures.*

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Geographical location

- Where is the event site located?
- Location in relation to noise-sensitive areas – is the venue located near residential areas, for example?
- Is it possible to satisfy the expectations of both the audience and the neighbours?
- How far away are hospitals, police and emergency services, public transport, car parks, major roads, local services and facilities, etc.?
- Are there any animal species/ecosystems that may be affected by the creation of a major event at the location?
- Will the geography of the area be particularly sensitive to extreme weather conditions such as cloudbursts, strong winds, etc., or special weather phenomena that could pose a risk to temporary structures that need to be erected?

Special facilities and installations

- Water, sewerage, natural gas, electricity, telephone (including overhead lines and signal amplifiers for mobile telephony) – are such facilities available at or near the event site, and can they be used?
- Are there any restrictions or hazards?
- Is the event site located near a hazardous installation/oil or gas pipeline or similar?
- Ensuring drinking water quality and preparing a contingency plan in case of accidents involving waste water.

The organiser should, depending on the circumstances, assess the above conditions during a visit to the event site, study maps of the area or, for example, obtain advice and information from the landowner or local authorities where possible. For existing concert venues, much of this information can be obtained from the owner or management of the venue and/or the local authorities.

Appendix 10: Food safety and chemical contamination

Chemical contamination

Chemical contamination can pose a risk to food safety.

Where does chemical contamination come from?

Chemical contaminants that are relevant in relation to serving food from a food stall are primarily natural toxins such as lectins in beans and process contaminants such as acrylamide in French fries or toasted bread. Preventive measures are described in the Danish Veterinary and Food Administration's digital tool Safe Food. These include soaking and cooking beans properly if canned beans are not used and avoiding overcooking/toasting French fries, bread, etc.

The main risks are listed in the table below.

Contaminant type	Substance(s)	Description	Preventive measures
Process contaminants	Acrylamide	Formed at temperatures above 120 degrees and in the presence of both the amino acid asparagine and carbohydrates.	Good working methods for frying/baking e.g. bread, biscuits, crackers, potato chips, French fries, roasted coffee, etc. to reduce the formation of acrylamide. For example, fry until light brown, not dark brown. Discard dark products. Reduce the temperature.
	PAH	Form Duri ng grilling, frying, smoking and direct drying.	Good working practices for smoking, frying and direct drying to reduce the formation of PAH. Indirect drying and smoking result in lower PAH levels than direct methods. Optimise the temperature. Use appropriat e fuel type. Set smoking time according to product size. Reduce cooking time and temperature. Pre-cook if possible. Remove burnt areas.
	Furan	Formed duri ng heat treatment of food. Baby food containing mea t may have high furan content.	Toast lightly, not darkly – e.g. for coffee, bread, etc. The boiling point of furan is 31 degrees, so some furan can evaporate at higher temperatures than this.
	Ethyl carbamate		Use good good manufacturing practices in the production of stone fruit spirits, e.g. pitting of the fruit
	3-MCPD, 3 MCPD esters an d glycidyl fatty acid esters	Formed, inter alia, during the refining of vegetable oil	. Use cold-pressed oil, as it has a lower content.
	Mineral oil (MOSH/MOAH)	May be used as e.g. lubricant or in packaging.	Be aware of food contact materials such as jute bags and recycled fibres. The company must be able to

			document suitability for food contact.
Organic environmental contaminants	General	In general Organic pollutants and metals tend to accumulate in the liver and often also in the kidneys. For animals that have grazed in an area suspected of being contaminated, it may therefore be beneficial to discard the liver and kidneys.	
	Dioxin	Accumulates in fatty tissue.	Deep trimming of large salmon from the Baltic Sea to remove fat and brown meat. Do not use fish liver from Baltic Sea fish. Limit the use of horse meat and sheep liver.
	PFAS	Binds to protein and therefore follows therefore the protein fraction.	
Metals	Cadmium	All	Shrimps must be peeled so that no remains of the digestive system are present. Brown crab meat should not be used due to its high cadmium content. Limit the use of sunflower seeds and linseed in snacks, salads, etc. Limit the use of liver and kidneys from older animals.
	Lead	All, but especially foods with a large surface area in relation to volume.	Special attention should be paid to the production of baby food. Lead-soldered equipment should not be used. for food contact. Port wine etc. should not be stored in crystal decanters. For FKM , the company must present documentation of suitability for food contact. Rinse vegetables and fruit thoroughly. Remove bullet channels and ammunition from game.
	Mercury	Fish products, especially large predatory fish.	Special attention should be paid during the production of baby food.
	Tin	Some food cans are made of tin or may have an inner layer of tin.	Do not store food in opened cans. Transfer the contents to suitable packaging before storage.
	Nickel	Absorbed into crops from the soil. Particularly high levels in legumes, nuts and cocoa, for example.	

	Iodine	Is a nutrient that is harmful in excessive amounts.	The iodine content in seaweed can be reduced by rinsing in clean water and further by boiling the seaweed and discarding the cooking water.
Mycotoxins	Ochratoxin A, aflatoxins	In grains, the content will be highest in the outer husks (bran).	Store in a dry and cool place to prevent mould growth. Sorting out of discoloured/deformed items, e.g. nuts and dried figs.
	Patulin	Apples, pears, blueberries	Cutting away/sorting out affected areas, e.g. on apples, can reduce the occurrence, but not necessarily eliminate it completely. Store e.g. apple products and blueberries in clean containers.
Natural toxins	Lectins	Found in raw beans and elderberries.	Soak and cook beans thoroughly. Elderberries must also be boiled
	Cucurbitacins	Squash	Taste Taste squash/courgettes and discard if they taste bitter.
	Phenylhydrazines	Mushrooms	Make for mushrooms are safely identified. Champignon must be heat treated to break down phenylhydrazines.
	Cyanogenic glycosides (cyanide)	Found in flax seeds, almonds (especially bitter ones), apricot kernels and cassava.	Use Do not raw cassava/manioc roots. Heat treatment reduces the of hydrocyanic acid. Crushing flax seeds releases hydrocyanic acid and, if consumed shortly afterwards, can lead to excessive intake of hydrocyanic acid. Please note that many flax seeds are labelled with that they only be used for e.g. baking.
	Opium alkaloids	Birch	The content in birch is partially reduced by heat treatment such as baking.
	Furocoumarins	Parsnips and celery, etc.	Limit the storage time of parsnips and celery. Peel the products. Wash hands after handling celery, parsnips, carrots, parsley and fennel.
	Nitrate	The content in e.g. lettuce depends on the variety, but also on the climate at harvest. High content in rocket and spinach.	Special attention should be paid during the production of baby food. Do not use rhubarb leaves (also due to oxalic acid). Limit the addition of nitrite to meat products and keep the pH

			as high as possible and the temperature as low as possible.
	Tropane alkaloids	Particularly millet, buckwheat, sorghum, teff	Special attention should be paid during the production of baby food. Teff also belongs under the limit values for millet.
	Pyrrolizidine alkaloids	Derived from other plants as cross-contamination. However, cornflowers, for example, also produce pyrrolizidine alkaloids.	Limit cross-contamination fro m other plants/plant parts if the company picks/harvests itself.
	Quinolizidine alkaloids	Lupin seeds	Lupin seeds that taste bitter have a high content and must be well rinsed. Rinse until the water no longer tastes bitter. Discard the water.
	Perchlorate	Found mainly in greenhouse-grown vegetables.	Limit chlori nated water for crops.
	In general		Know the raw material in terms of species identification and plant parts and assess whether the product is a novel food.

Annex 11: Information, communication, etc.

Information for the public, employees and authorities

The following are a number of specific examples of information and points to note for the public, employees and authorities, both before and during, as well as in connection with, an emergency.

Information for the audience

It is essential for the smooth running of an event that the audience is well informed about the venue and its layout and about the rules that apply during the event, e.g. through knowledge of the rules of conduct. It is also advisable to keep the audience regularly updated on practical and programme-related matters and on the general progress of the event.

It is important that the audience knows what to do in an emergency, including where to find the main entrances and exits, emergency exits and escape routes, and where and how to obtain necessary information.

Members of the public who have difficulty obtaining information may feel dissatisfied, unhappy or become aggressive, and there will be a greater risk that they will not comply with important instructions. It is therefore necessary for the organiser to ensure that the necessary information is provided to the public before, during and after the event.

Before the event begins, consideration must be given to what the organiser should tell the audience in an emergency, including when this information should be provided. It will of course depend on the nature of the situation when those present should be informed, but well-planned information will help greatly.

Information for the audience can be divided into:

- **Advance information** must be provided weeks and months in advance of the event to make the audience aware of relevant information channels and precautions, as well as the importance of considerate and appropriate audience behaviour. This information can be provided via the event's website and social media, leaflets and flyers, posters, advertising and publicity in the media, press releases, campaigns, etc.
- **Ongoing (non-urgent) information** during the event must make the public aware of any delays to concerts, procedures in the event of accidents, missing persons, etc. This can be done via the website and social media, large screens, loudspeaker systems, notice boards, text messages and apps, event newspapers or radio.
- During the event, **urgent information** must enable the audience to respond effectively and appropriately in emergency situations so that the situation is not exacerbated by inappropriate behaviour. This information can be provided via large screens, loudspeaker systems, notice boards, radio, television and speech. Important information should be provided several times in a clear and precise manner to avoid misunderstandings as far as possible.

Emergency situations

If emergency messages become necessary, the following elements should be taken into account when communicating with the public:

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- Provide accurate information at the right time. This is important to ensure appropriate behaviour in relation to the cooperation of the public.
- The best response from the public is achieved if the information comes from a person who is known locally and perceived as an authority. It may therefore be appropriate to use a presenter or event manager rather than a musician or entertainer.
- Plan the core content and wording of an emergency message in advance. It is a good idea to record different messages (possibly in several languages) in advance for use in different emergency situations, e.g. "Please leave the area at entrance A. Further information will follow."
- Instructions for the public should be linked to signs, pictograms and other visible signals, preferably via large screens.
- The instructions must be clear and specific, and the main content of the message should be repeated, especially regarding the nature of the incident, the actions required and what the audience should do in concrete terms to assist.
- Information about the incident must be provided in close coordination with the authorities.

Example

An example of the information that can be provided to the public in an emergency situation could be as follows:

- *Immediate instructions* on where the audience should go or gather – possibly which exits to use*:* "*Please leave the area via exit A. Further information will follow*."
- *Additional instructions* if circumstances change: *"To avoid congestion in the area around exit A, please use exits 3 or 4 and proceed to Area B."*
- *Follow-up information:* At an appropriate time, the information can be expanded to include details such as:
    - Where is the meeting point for friends/family who have been separated.
    - Where are the toilets outside the area?
    - What transport options are available?
    - Where the event management information centre and crisis centre are located.
    - That measures will be taken to compensate the public or refund the cost or set a new date for the event

Information for employees

Lack of or incorrect instructions to employees increases the risk of vital information being delayed, misunderstood or never reaching the right people. The organiser should therefore ensure that all relevant employee groups receive the necessary information.

It is also recommended that mandatory training/courses be provided for all staff in a number of key functions and that certificates of attendance be issued for participation in such courses.

Information and instruction for employees can generally be divided into:

- *Prior information and instruction* to enable staff to communicate briefly, correctly and accurately. In order to implement and exercise

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the necessary discipline, it is essential that staff are familiar with the division of responsibilities and chains of command. The prior instruction must also enable staff to take the necessary measures in emergency situations, such as calling for medical assistance or requesting the public to leave a specific area in a calm and orderly manner.

- *Ongoing (non-emergency) information* during the event to inform staff about how the event is progressing and whether, due to changed circumstances, programme changes, etc., problems for or with the audience or parts of the audience can be anticipated.
- *Urgent information* which, in connection with emergencies or the onset of a possible emergency, must enable staff to prepare for the situation in question as early as possible and thus ensure that they can deal with it in the best possible way. Staff may be alerted by special audible signals in addition to messages.

In connection with radio communication, call signals should only be used in accordance with the signal plan that the organiser should have prepared for the event. The signal plan may advantageously be structured as a pyramid, where the overall event manager or safety officer communicates with the area manager for, e.g., a stage/camping area/entrance, etc., and where the area managers communicate with their own staff on an alternative channel.

Emergency calls should be sent on a fixed working channel to avoid mistakes caused by having to switch between several channels.

It is important that the terminology used in communication with employees is known and understood by everyone to avoid misunderstandings, and that only common maps are used and referred to when providing information about locations.

Information for authorities

It is important that authorities are kept informed of any significant developments and changes to the event. Information to authorities should therefore be organised in the same way as information to the public and employees.

Information for the authorities can be divided into the following categories:

- *Preliminary information* to enable the authorities to form an impression of the event, including its nature, type and scope, expected audience numbers, rules of conduct, duration, layout of the venue, types of entertainment, alcohol and other intoxicating substances policy, etc.
- *Ongoing (non-emergency) information*, which during the event must give the authorities an idea of whether the event is proceeding as planned, how large the audience is, whether there are or may be problems with the audience or parts of the audience, whether there are any traffic problems in connection with the event, or other relevant deviations

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- *Urgent information* that, in connection with emergencies, must enable the authorities to prepare for the emergency in question as early as possible and thus ensure that the authorities have the necessary resources to deal with the situation. It is important to use terminology that is familiar to the event staff and the authorities in order to avoid misunderstandings. Only common maps of the event site should be used and referred to in order to avoid misunderstandings.

Communication in the event of major incidents and accidents

If major incidents or accidents occur, there will be a need for very rapid and effective information about the facts and developments. This will ensure that those present and the public are well informed, which will prevent misunderstandings, rumours, frustration and aggression in the event area, as well as anxiety among relatives.

When an emergency is known, early response and communication are of great importance. The organiser's action plan for situations requiring special attention and accidents must therefore be clarified in advance and specify who has the authority to decide whether an emergency message is necessary, who should issue it, how it should be transmitted and under what circumstances, and through which channels.

The organiser should ensure clear understanding and cooperation with relevant authorities and key persons who need to be involved in emergency situations. There must be a clear plan for what messages are to be issued and who is responsible for issuing them.

The organiser may wish to contact the police district's communications officer in advance to agree on detailed guidelines and responsibilities in the event of major incidents and accidents.

Remember response time

If the emergency is so serious that evacuation may be necessary, early information is extremely important. In many situations, the time between when people are first asked to evacuate an area and when they comply with the request is a significant factor in the entire evacuation.
It is therefore not sufficient to calculate evacuation times based on the time when a crowd begins to move until the area is cleared. Response time must therefore be added to *walking time*.

Signals must be clear, concise, brief and positive

In an emergency, it may be appropriate to attract the attention of the public by means of loud and clear signals before information is provided. When information is provided, use easily understandable language and short, action-oriented sentences. It may be necessary to provide the same information in relevant foreign languages.

As far as possible, avoid relative references in messages that can be interpreted in different ways, e.g. "away from the foreground" or "further back". Instead, messages should aim to provide clear and specific references to locations or obvious landmarks.

It is best to give short, clear instructions and to repeat important ones. For example, say "Use the green gate" rather than "Do not use the red gate".

Messages should also be polite, firm, calm and positive in tone. It is important that information is provided in a way that is not alarming.

Use multiple channels

In serious situations, it is best to combine verbal messages with texts, pictograms and instructions from employees/security personnel in visible clothing.

Different people will react differently to the same types of signals, so it is a good idea to consider using multiple channels. The simultaneous use of different forms of communication and channels also takes into account that certain communication channels cannot be used for people who, for example, have hearing or visual impairments.

Repeat and update the message

Reinforcement and repetition may be necessary to maintain the audience's attention. In an emergency, the main content of the message should therefore be repeated. This may include what action is required and why. It should also be stated that the message will be repeated, as the audience may otherwise become afraid of not receiving information, which may cause them to stop what they are doing.

Messages should also be provided to keep the audience up to date with the situation, even if the situation has not changed. Information that the situation is unchanged may therefore be relevant information. Broadcasting information widely is more effective and rational than providing individual responses.

Continue providing information even after the audience has left an area in connection with an emergency, as they may need to know, for example, whether the event will continue, whether and when abandoned vehicles can be collected, and what else they should do in relation to the event.

Use a single or coordinated source

The best response is achieved if the information comes from a source that is considered an authority. If this is not possible, the artist currently on stage may be the only or the best possible choice. In this case, it is important that the performer is involved in the cooperation on such safety matters and is informed and prepared for their role in a given emergency situation before the event begins.

Communicate to avoid panic

Accurate information at the right time is crucial to prevent panic. Both experience and research indicate that delayed or lack of communication is a much greater danger than the danger that gives rise to evacuation or similar measures. There is therefore no reason to refrain from mentioning the reason for an evacuation for fear of causing panic, as this may have the opposite effect.

Press handling

An event and any major incidents or accidents that attract attention will naturally attract media interest.

For this reason, a spokesperson should be appointed for the event who can speak on behalf of the management. A press strategy should also be drawn up so that the press can be given accurate and reliable information during the event and, not least, in the event of major incidents or accidents.

There should also be a clear and described structure for the procedures surrounding the information and, in addition, a press plan or strategy. The press strategy must be known to relevant employees in the organisation, and it must be possible to refer to a telephone number and/or a location where the spokesperson can be reached or provide information about press conferences or similar.

The spokesperson should only comment on matters relating to the event's area of responsibility. For questions relating to the responsibilities of public authorities, the spokesperson should refer to the appropriate authority. This is the best way to ensure that the press only receives accurate and complete information.

It is important that the spokesperson is kept up to date as quickly as possible so that they are able to provide the press with the factual information they require. At the same time, it is essential to ensure that communication about the incident is prepared in close coordination with the authorities and appears consistent with other efforts.

Press conference

If an event is subject to intense media attention due to a major accident or other attention-grabbing circumstances, it may be appropriate to arrange a special press conference. The press conference provides an opportunity to meet a large number of media representatives at the same time, thereby minimising the resources that would otherwise be required to serve the media. In addition, it demonstrates openness and transparency in crisis management.

A press conference can be arranged as a joint press conference, in which other partners can also participate. The meeting can be followed up with one or more press releases so that media not present also receive the correct information. The format can also be made less formal if only a quick update is needed, where the organiser or a representative gives a brief update to the press (doorstep).

Appendix 12: Matrix providing an overview of audience movements in the square

Movement in the square

Once the audience is inside the venue, you should have mapped out and considered in advance where, when and how you expect the audience to move around.

Narrow passages between stages or other obstacles should be given special attention, as they can create bottlenecks and thereby increase density. The same applies to stairs or steps, which can halve the walking speed of the audience.

When mapping out where and how your audience will move around the venue, the music programme (if you have several artists) also plays an important role. The same applies to the weather. As an organiser, you should therefore create an overview of where your audience will be and when.

This can be done, for example, using a matrix like this, which shows the weather in relation to different activity areas:

	Warm/sunshine	Overcast	Cold/rainy
Indoor sales stalls			
Outdoor sales stalls			
Indoor bars			
Outdoor bars			
Indoor stages			
Outdoor stages			

Lower audience density = Low risk Medium audience density= Medium risk High audience density = High risk

The density can then be matched with an overview map, providing an overview of expected areas of congestion in different weather conditions.

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