



Risk control Fairground Attractions



In partnership with



Risk Control: Fairground Attractions

Introduction

Funfairs have long been a popular addition to the social calendar around the country. The number of different types of fairground attraction presented at funfairs make them exciting and enjoyable events for people of all ages.

Although fairground attractions have been shown to be relatively safe in comparison to activities such as driving a car or riding a bicycle, there have been a small number of serious accidents involving the public and employees over the years¹. The attractions operated at funfairs can present elevated risks if not purchased from reputable sources, properly assembled, maintained, and operated correctly.

The hazards will vary depending on the type of attraction operated. Some attractions will present minimal risk, for example, a coin-operated amusement device. However, some attractions, particularly those which require complex assembly and are designed for people to ride on can present significant risk if not properly managed. Examples of such attractions include.

- Roller coaster and road trains
- Drop towers
- Pendulum rides
- Waltzer's
- Walk through haunted houses and mazes
- Helter skelters

Type of Risks

The risks presented by attractions can include.

- Failure of materials due to stress, fatigue, or corrosion
- Failure of safety critical components or parts such as braking systems due to inadequate maintenance
- Falling or toppling over due to instability because of unsuitable ground
- Failing to secure safety bars or belts properly through operator error

The type of incidents associated with these failings can include falls from height, being struck by falling objects, or crushed between moving objects. Incidents such as these can cause life-changing injuries or fatalities.

Through understanding the key health and safety issues involved with attractions, and with thorough planning and organising, they can remain a safe and pleasurable addition for all to enjoy.

Roles and Responsibilities

The responsibilities start with the designers, manufacturers, importers, and suppliers of the attractions. Once purchased and brought into use, the responsibilities then fall to those who organise the events where the attractions will be used, such as at funfairs, as well as those who control and operate the attractions. In some cases, one individual or organisation may fulfil the role of several duty holders.

It is important that each duty holder understands what is required of them. This is set out in legislation, guidance, and standards. It is also important that they understand what other duty holders are responsible for so that they can work in unison to satisfy all duty holder obligations.

Designers, Manufacturers, Importers and Suppliers

Section 6 of the Health and Safety at Work etc. Act 1974 (the Act) deals with the health and safety of attractions, which are referred to as articles². The Act requires the following, so far as is reasonably practicable:

- Design and construct the attraction so that it will be safe and without risks to health at all times when it is being used for or in connection with the entertainment of members of the public and when it is being set, used, cleaned or maintained by a person at work. This includes testing and examining the equipment as necessary to ensure that this is the case
- To provide adequate information about the use for which the attraction is designed or has been tested and about any conditions necessary to ensure that it will be safe and without risks to health at all times when it is being used for or in connection with the entertainment of members of the public and when being dismantled, maintained and disposed of
- To provide revisions of information to those supplied with an attraction when it becomes known of anything that gives rise to a serious risk to health or safety

Designers must also specify the conditions in which the attraction is expected to operate and include any limitations on use, for example, height restrictions. Designers should ensure that the attraction is designed in accordance with relevant standards, for example BS EN 13814 and the *Amusement Device Safety Council's (ADSC's) Safety of amusement devices: Design*³. This work should be thoroughly documented and all necessary quality assurance protocols relating to the design should be completed.

Manufacturers of attractions must ensure that the attraction meets the design specification in terms of materials, material properties, dimensions, quality, and manufacturing standards¹. Parts must also be clearly marked in a manner which will avoid errors during assembly and those involved in constructing the attraction such as welders, electrical

technicians and any third parties are suitably competent to do so¹.

Importers are those who bring attractions into the country either temporarily or permanently. They are responsible for ensuring that the pre-use inspections (design review, ACD and initial test) are carried out and that the designer and manufacturer complied with their duties. This can be achieved by checking that the operations manual contains the necessary reports on the pre-use inspections. The attraction should not be used unless these pre-use inspections have been carried out and a Declaration of Operational Compliance (DOC) has been issued.

Suppliers of attractions are those individuals or organisations that sell or hire the attractions. Their responsibilities include checking that the designer, manufacturer and importer, as appropriate, have complied with their legal requirements. This should include checking that the operations manual contains the necessary reports on the pre-use inspection(s), design review, ACD and initial test before the attraction is first used. Suppliers must provide the controller of the device, whether bought or hired, with all the information and instruction necessary to enable them to safely use the attraction. This should also include the reports of pre-use inspections and any modifications¹.

Controllers and Operators

Controllers or often referred to as Ride Controllers are responsible for the safe operation of all attractions within their control. Controllers are duty holders and as such have a general duty under Section 2 of the Act to ensure, so far as is reasonably practicable, the health, safety, and welfare of their employees. They also have duties under Section 3 of the Act to conduct their undertaking in such a way as to ensure, so far as is reasonably practicable, that persons not in their employment who may be affected are not exposed to risks to their health or safety. For example, members of the public that use the attraction or those in proximity to the attraction which could be harmed if something goes wrong.

The Provision and Use of Work Equipment Regulations 1998⁴ requires more specific actions to be taken by the controllers:

- Any attraction they import, buy, sell, hire or otherwise have control of, was designed and manufactured in accordance with all the relevant legislation and standards
- Their attractions can be transported, built up, inspected, operated and dismantled without creating risks to the health or safety of any person
- That all components of their attractions have been regularly inspected by competent people to make sure it is safe for use

- The attractions are routinely examined and maintained so it remains safe for use
- Any staff they engage are trained and competent in their roles and that they work safely, such as operators
- The safety and health of the public is protected from the hazards of the attraction, whether using it or not
- Procedures are in place to ensure any emergencies, such as mechanical failure, fire, or accidents, are reported as necessary¹

Controllers must comply with requirements under The Management of Health and Safety and Work Regulations 1999⁵ and ensure that they effectively co-operate and co-ordinate their activities with the event organiser and other duty holders using the site to ensure all statutory requirements are met.

Controllers must ensure that all employees are competent to operate the attraction they have been tasked with operating. They must always be in immediate control of the attraction and operate the attraction in accordance with the operating instructions issued by the controller. They must never be in charge of operating more than one attraction at a time and report matters that could affect the safety of the attraction to the controller without delay.

Operators must also be aware of any restrictions for a particular attraction regarding environmental conditions such as weather conditions and rider conditions such as rider height, pregnancy¹. As well as any other conditions that are foreseeable which could cause persons to be harmed by the attraction.

Organisers

These are the individuals, groups of people or organisations, such as local authorities or educational establishments, who organise and control events where attractions will be present. They are also known as 'event organisers' and must understand their duties. Although they do not directly control or operate the attractions, they still have duties under Section 2 and 3 of the Act to ensure the health and safety of their employees, as well as those not in their employment, such as the public or contractors². They also have duties under The Management of Health and Safety and Work Regulations 1999⁵:

- To have arrangements in place for the effective planning, organisation, control, monitoring and review of the preventive and protective measures that affect the safety of all people on site
- To conduct a suitable and sufficient risk assessment which identifies any control measures needed to avoid or reduce

risks to employees and other through application of the principles of prevention

- To co-ordinate and co-operate with the operators of the attractions and others involved in the event

Planning the event where attractions will feature is important to ensure all reasonable steps are taken to identify the hazards on the site which may impact the safety of the attraction. For example, arrangements for appropriate location of the attractions, considerations will include gradient of slopes, large trees, overhead power lines⁶, soft ground etc. This should involve the controller. Consideration should be also given to the attractions:

- Compromising safety in relation to the overall risk assessment for the event
- Blocking the emergency access routes
- Causing audience congestion
- Impacting other site users when accessing and egressing the site when they are being assembled and disassembled⁷. Some attractions and associated structures may be classed as temporary structures, in such cases, the requirements under The Construction (Design and Management) Regulations 2015 will apply⁸

The event organiser must also ensure that those who operate and control devices fully co-operate with them and support them with the provision of relevant information when requested. Such information will likely include:

- The type of attraction(s) intended to be used at the site and the requirements for the safe access and egress of vehicles that transport the attraction(s), ground condition requirements, space requirements for the attractions safe use, queuing of users, and the attraction assembly and disassembly
- Risk assessments and safe systems of work
- Evidence of appropriate Public Liability insurance
- Training provided to operators to safely operate the equipment
- Controllers must use a competent inspector to carry out the required inspections on their attractions and associated equipment and be able to demonstrate how they assured the competence of that inspector. Equipment inspection records, such as ADIPS⁹ for attractions and PIPA (or equivalent) for inflatable attractions and evidence of a pre-use device check regime should be requested
- Emergency plans and arrangements for foreseeable emergencies, for example, rescuing people trapped on a high ride attraction where access equipment such as a MEWP may be required, and how they will monitor weather

conditions and make the call to stop the use of attractions if necessary

- Any other information that demonstrates that they have complied with their legal requirements

The event organiser must also ensure they have competent health and safety assistance to support them with meeting their legal duties. A Safety Advisory Group (SAG)¹⁰ may be able to provide advice and guidance relevant to planning the event where attractions will be used.

Organising effectively is critical to ensure attractions are safe for people to enjoy. Those who organise events that have attractions as a part of that event will have overall responsibility to ensure that event site is safe for the use of attractions. To ensure effective organisation, event organisers should appoint a responsible person who will be on site both during pre-event operations such as the build phase, during the event, and after the event during the breakdown phase. This person will be trained on the emergency procedures and be known to all other responsible persons on site, such as controllers and operators.

Managing the site during the event requires specific arrangements to be in place which deal with effective means of communicating with controllers, to ensure that responsible persons are always on site, ensuring that prohibited areas are properly protected or marked, that fire safety checks are made and recorded, and arrangements for dealing with other foreseeable emergencies are implemented.

Monitoring the site throughout the event is important to ensure safe conditions are maintained. This should involve making regular observations of the attractions and how they are being operated, checking for overcrowding and pinch points and re-routing pedestrian routes where necessary. Emergency routes must be always maintained and must not be obstructed, such as by waste and vehicles. The site layout must be checked to ensure it remains as it was planned and recorded such as in the Event Management Plan, unless there are issues which suggest it is no longer suitable. Any accident, incident and near miss must be appropriately recorded and investigated¹.

Reviewing the performance of a temporary fairground site will often take place after the event and should include those who were in control of the attractions to understand if there were any issues during the event and what they did or are going to do about them. The findings from the review should be used to drive continuous improvement and enhance the health and safety standards of the next event. Many organisations will be familiar with the Plan, Do, Check, Act model, as endorsed by the Health and Safety Executive

(HSE) in their publication *Managing for health and safe HSG 65*¹¹. This approach can be used as means of managing health and safety at events as well as across other areas of the organisation.

Failure to adequately manage health and safety could lead to people being harmed at the event, or lead to dangerous occurrences which may be reportable under The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013¹², for example, equipment encountering uninsulated overhead electric lines. This may be investigated by the enforcing authority for health and safety for that activity which in most cases will be the HSE. If the HSE find material breaches, they may serve notices and charge a fee for intervention. For more serious breaches, they may also prosecute. It is therefore important that all those involved in organising events where attractions are used, are aware of what they must do to keep everyone safe¹³.

Landowners

Those who provide land for use as funfairs or other events where attractions will be used but are not involved with the organising of the event, must also be aware of their duties and responsibilities. In particular, those under the Occupiers Liability Act 1957¹⁴ and the Occupiers Liability Act 1984¹⁵. This requires occupiers, such as landowners, to take reasonable care to those who visit the land. Landowners should also seek to understand the nature of the attractions and the event to be able to advise whether the land is suitable for the intended purposes. The landowner should provide all relevant information regarding the land to the event organiser to assist them with assessing the risk. For example, locations of any unstable ground, overhead or underground services and access and egress restrictions.

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Further information

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