



Fairgrounds and amusement parks

Entertainment Sheet No 5

Introduction

This information sheet introduces the contents of the new guidance agreed with the fairgrounds and amusement parks industry through the Joint Advisory Committee (JAC) on fairgrounds and amusement parks. This new guidance has been published by HSE and is entitled *Fairgrounds and amusement parks: guidance on safe practice* HSG175, ISBN 0 7176 1174 4. It revises and replaces the previous guidance *Fairgrounds and amusement parks: a code of safe practice* HSG81, the technical annex, the log book and the record of daily inspections of passenger devices.

It is expected that all duty holders in the industry will need to obtain a copy of the full guidance as a reference. This information sheet acts as a reminder of the key points of the system of steps and checks agreed with the industry as being appropriate measures for working safely and complying with the law, and of the main responsibilities of duty holders.

The following trade associations, together with HSE, are represented on the JAC:

- Amusement Catering Equipment Society (ACES);
- British Amusement Catering Trades Association (BACTA);
- British Association of Leisure Parks, Piers and Attractions (BALPPA);
- National Association for Leisure Industry Certification (NAFLIC);
- Showmen's Guild of Great Britain (SGGB);
- Society of Independent Roundabout Proprietors (SIRP).

Legal requirements

The Health and Safety at Work etc Act 1974 places duties on:

- designers, suppliers, manufacturers, installers and importers;
- organisers;
- controllers;
- operators;
- attendants;
- inspection bodies.

About the new guidance

The guidance develops the good practice concerned with the overall safety management of attractions contained in the previous Code of Safe Practice with increased emphasis on risk assessment, management of safety and

the inspection stages known as design review, assessment of conformity to design, initial test and thorough examination. It introduces the industry's scheme for the registration of inspection bodies.

A risk assessment involves looking at what can go wrong, the likelihood of this happening and what is needed to prevent it. It is often about applying common sense in a logical way.

A good risk assessment should identify the hazards, look at who might be harmed and with what degree of severity, decide whether the risks are already adequately controlled and determine what further action, if any, is necessary to control the risks.

The new term 'design review' means to obtain confirmation in writing that the design concept is sound and that the calculations are correct. The design review report together with other required inspection reports and all relevant information are now to be kept in one place and known collectively as the operations manual.

Design review reports may not be needed for older attractions whose design has been proven by maturity. Whether or not a design review is needed depends on the controller's assessment of risk aided by advice from an inspection body. Special attention is needed for second-hand devices.

Inspection bodies

The amusement industry trade associations represented on the JAC consider that BS EN 45004 gives an appropriate framework for inspection bodies to declare what work they are competent to do and provides supporting evidence of their fitness to do it. They have agreed that a register of inspection bodies that have made such a declaration should be maintained. There is a service quality schedule for each type of inspection which identifies the types of qualifications, experience and service performance the industry considers to be appropriate for each inspection task.

Currently, the body which has so far agreed to perform this function is NAFLIC, 2a Grove Parade, Buxton, Derbyshire, SK17 9XF Tel: 01298 77468. People and organisations wishing to register do not have to be members of NAFLIC.

Steps and checks

The system of steps and checks recommended for the safety of attractions set out in the guidance is in table 1.

Note on design review

The amusement industry trade associations expect the safety aspects of the design to be checked in a design review. It is preferable for this to be carried out prior to

manufacture. If the designer does not arrange for a design review then it will be necessary to provide adequate data to the manufacturer, importer or supplier so that they can have it done. The inspection body will confirm in writing that the design (whether home produced or foreign) is sound and that the calculations are correct.

Buying and selling attractions

Once the procedures recommended in the new guidance are fully adopted, buying and selling attractions, particularly the more complex rides, will be much simpler. In the meantime the following points will need to be considered:

1. Selling a device

The person selling a device needs to comply with section 6 of the Health and Safety at Work etc Act 1974, which was specially amended to cover fairground equipment. The buyer can sign a written undertaking releasing the seller from his legal duty to provide safe equipment in the first place, however, the undertaking must state the matters involved and the related steps to be taken for safety. It will only be acceptable if it is reasonable, eg if an article has been ordered to a customer's specification or it is to be a component in another article.

If the seller has always carried out regular thorough examinations of the ride and has the confirmation of 'design review' with full information on the ride, then the sale should be relatively simple. If these reports are not available the seller may need to ask the manufacturer or a competent inspection body to provide the reports.

2. Buying a device

There are at least four different ways of buying a device and each has to be considered separately:

- 1 Buying new from a UK manufacturer.
- 2 Buying new from abroad.
- 3 Buying second hand from within the UK.
- 4 Buying second hand from abroad.

The difference between buying within the UK and abroad is further complicated if the buyer directly imports the device. An importer takes on the legal duties of designer, manufacturer and supplier, but if the buyer imports direct he or she assumes these legal duties.

1. Buying new from a UK manufacturer Once the recommendations of this guidance have been adopted, a UK manufacturer will be able to show that the initial integrity of a new device has been independently confirmed by providing with it the reports of design review, assessment of conformity to design and initial test together with all the relevant information on how to use and maintain the device contained in the new style operations manual.

2. Buying new from a foreign manufacturer Either the importer or the buyer, if the device is directly imported, will need to ensure that the design safety has been reviewed and that the device is built according to the design specification (assessment of conformity to design). They need to make sure that an initial test is carried out and

verified. There may be some paperwork suggesting that these steps have been covered already abroad but such evidence may need to be revised and added to in order to meet the industry standards in the new guidance. It is strongly advised that a competent inspection body is asked to confirm that this work has been completed. An operations manual should be compiled from the reports establishing initial integrity and the operating and maintenance instructions.

3. Buying second hand from within the UK Some reports such as the report of design review may not exist in the operations manual. Whether a design review is needed or not depends on the controller's assessment of risk aided by advice from an inspection body. Advice concerning missing reports should be sought from inspection bodies based on the risk assessment of the device.

4. Buying second hand from abroad The importer, or the buyer if directly imported, will need to establish if the inspection reports establishing initial integrity and to the standard recommended by this guidance. It is highly likely that there will be no supporting inspection reports which can prove initial integrity. The importer will need to consult a competent inspection body to fill any gaps in the operations manual depending on an appropriate risk assessment of the device.

If a complex ride contains elements from home and abroad the project manager will need to ensure the conformity of the whole.

Modifications

Modifications include safety-critical modifications, or the use of a device outside its specification or the normal environment for which it was designed. Definitions can be found in the *Glossary*.

No safety-critical modification needs to be made to a device unless an inspection body competent in design review has agreed in writing to the proposed modification. The work needs to be done in accordance with the revised design specification. Such work may require the original manufacturer's instructions (if available) to be amended.

When any modification is finished, the controller needs to arrange for a new assessment of conformity to design and initial test inspections. Make sure that all these reports are included in the operations manual with any new parts, lists, diagrams or operating instructions.

Information

Designers, manufacturers, installers, importers, suppliers and those who modify and repair attractions should provide all necessary information to allow a device to be transported, erected or dismantled, used, cleaned, maintained, repaired and examined safely. This information should form part of the operations manual.

There may be other background information such as detailed design calculations, computer programs, etc, relevant to the device which do not need to be kept in the

Table 1 Steps and checks

<i>Steps</i>	<i>Checks</i>	<i>Description</i>
Design		Carried out by suitably qualified and experienced designers with knowledge of the particular types of amusement devices being considered. Designers are responsible for drawing up the safety requirement specification based on a risk assessment within the design specification
	Design review	Appraisal of a design by an inspection body to check the adequacy of a design specification and the assumptions on which it is based
Manufacture		Production and assembly of a ride or item of fairground equipment to a design specification
	Assessment of conformity to design	A check carried out by an inspection body to ensure that the ride is constructed to the design specification
	Initial test	A functional test carried out by a competent inspection body to verify if a ride or item of fairground equipment is capable of meeting functional design requirements when operated in accordance with the instructions in the operations manual
Operations manual		Full instructions for safe use compiled by the manufacturer, importer or supplier and updated by the user containing documentary proof of inspections and records of any modifications as well as other records previously kept in the log book
Maintenance		Servicing and replacement or repair of components and protective materials to maintain rides and equipment in safe working order
	Daily check	Visual and functional check by operators and attendants designed to assess the condition and check for any deterioration of rides and equipment in service
Supervision		Management and overseeing of ride operation by trained operators and attendants
	Thorough examination	The procedures, tests and investigations necessary for an appointed inspection body to decide whether an amusement device may continue to be operated for a specified period of time
Layout and emergency procedures		The setting out of a fairground site and emergency procedures by the organiser to ensure safe separation distances are maintained and emergency procedures are in place prior to opening the fair

operations manual but they should be available for reference by inspection bodies and others.

Glossary

Amusement device: Term often shortened to **device** which includes:

- rides;
- transportable structures entered by the public, eg haunted houses, arcades, tents and booths;
- shooting galleries where hazardous projectiles are fired;
- play equipment.

Attendants: People who assist in the operation of an attraction, whose duties include taking reasonable care for their own and others safety, and to follow instructions of the ride operator or owner.

Attraction: Anything provided for the entertainment of the public at a fairground or amusement park, including rides, games and catering stalls.

Designers, suppliers, manufacturers, installers and importers: These people have a duty to ensure that fairground attractions are safe when first supplied and installed, and to provide adequate information on safe use. They have an additional responsibility to carry out any necessary research and to provide information.

Coin-operated children's ride: An unattended slow moving ride with a stationary base operated by coins, tokens, etc, allowing a maximum of two persons aged between 3 and 10 years. For such rides, where the seat can be raised, the maximum height of the seat shall not exceed 1.5 m. The guidance document contains special recommendations concerning this type of equipment exempting this class of equipment from a number of specific requirements. This type of equipment comes within the scope of BS EN 60335. A booklet is published by the trade association BACTA to assist in meeting this and other guidance.

Controllers: People (or companies) who own or otherwise have control of an attraction have a duty to maintain it in a safe condition.

Fairground equipment: Any fairground ride, or any similar plant which is designed to be in motion for entertainment purposes with members of the public on or inside it. It also refers to any plant which is designed to be used by members of the public for entertainment purposes, either as a slide or for bouncing upon, and includes swings, dodgems and other plant which is designed to be in motion wholly or partly under the control of, or to be put in motion by, a member of the public. The definition **includes** coin-operated children's rides, but not non-powered children's playground equipment.

Inspection bodies: People (or companies) who provide inspection and testing services.

Maturity: Evidence from past experience that a design or a component of a design has a history of safe functioning. Such evidence needs to be scrutinised carefully to make sure that it is wholly relevant.

Operations manual: Full instructions for safe use compiled by the designer, manufacturer, importer or supplier (updated by the user) containing documentary proof of all inspection reports and records of any modifications as well as other records previously kept in the log book.

Operators: People in immediate charge of an attraction, whose duties include safe operation of the attraction.

Organisers: People (or corporate bodies) who have overall control of a fairground or an amusement park. They have duties concerning the safe layout and emergency procedures.

Ride: A fairground ride has the same meaning as the legal definition of fairground equipment.

Safety-critical modification: Any alteration to the hardware/software of a piece of equipment including the introduction of a component which departs from the original design specification.

Reference

Fairgrounds and amusement parks: guidance on safe practice HSG175 HSE Books 1997 ISBN 0 7176 1174 4.

Additional copies of this information sheet are available from HSE Books.

Further advice can be obtained from HSE offices (see under Health and Safety Executive in the telephone directory). For other enquiries, ring HSE's Infoline Tel: 0541 545500, or write to HSE's Information Centre, Broad Lane, Sheffield S3 7HQ.

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HSE home page on the World Wide Web:
<http://www.open.gov.uk/hse/hsehome.htm>

This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

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