

# NAFLIC

*National Association For Leisure Industry Certification*

## Standards & Related Documents Committee

### NAFLIC INFORMATION SHEET - JULY 2005

#### NIS001. Physically Impaired Passengers

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In August 2002 we issued Technical Bulletin 246 on the subject of mentally impaired passengers. Since then, one or two incidents / accidents have prompted us to compile this NAFLIC Information Sheet discussing some aspects of physical impairment.

The need to consider how to limit participation of physically impaired passengers, on grounds of safety, is not frequently discussed and we realise that this is the first Technical Bulletin that NAFLIC has ever produced on this subject. The requirement to balance the over-riding need for safety with the wish to provide leisure opportunities to those with some physical impairment is clarified by the Disability Discrimination Act 1995, which may be purchased from The Stationery Office Ltd. Some very limited summary of specific points is given below. The full text of the Act should be consulted for authoritative information.

It is unlawful for a provider of services (including facilities for entertainment, recreation or refreshment) to discriminate against a disabled person in refusing to provide, or deliberately not providing, to the disabled person any service which he provides to members of the public. It is irrelevant whether the service is provided on payment or without payment.

A provider of services doesn't discriminate against a disabled person if he can show that the treatment in question is justified. Treatment is justified only if in the opinion of the provider of services :-

- one or more of the conditions mentioned in Section 20 subsection (4) of the Act are satisfied; and
- it is reasonable, in all the circumstances of the case, for him to hold that opinion.

But Section 20 subsection (4) specifically explains that the treatment is justified if it is necessary in order not to endanger the health or safety of any person (which may include that of the disabled person).

A person has a disability for the purposes of the DDA 1995 if he has a physical or mental impairment which has a substantial and long-term adverse effect on his ability to carry out normal day-to-day activities. That is to say a "disability" is an "impairment" which adversely affects ability in a long-term way.

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Amongst other things, an impairment may be taken to affect the ability of the person concerned to carry out normal day-to-day activities if it affects :-

- mobility;
- manual dexterity;
- physical co-ordination;
- continence;
- ability to lift, carry or otherwise move everyday objects;
- speech, hearing or eyesight.

N.B. Only items relating to physical impairment (rather than mental impairment) have been listed here.

There are some limiting physical conditions which are not necessarily considered by the DDA to be impairments and yet which may also need to be considered by an amusement device designer, such as :-

- extremely tall passengers;
- extremely heavy passengers;
- persons potentially vulnerable to raised anxiety states, e.g. persons with heart problems, pregnant women;
- other delicate medical conditions.

The designer will need to consider whether he should exclude persons having a particular disability, impairment, unusual dimensions, or medical condition (illness or injury) because they couldn't, for instance, safely :-

- read necessary instructions;
- get in and out of a vehicle;
- hold onto essential handrails;
- resist the tendency of the dynamic forces to eject some passenger subgroups from the ride (bearing in mind the details and dimensions of the containment);
- apply any necessary bracing forces to maintain a stable position;
- use the required action skills (e.g. driving a dodgem car);
- hear auditory warnings;
- negotiate emergency evacuation routes;
- etc.

If there is doubt about any of these, then appropriate conditions may need to be devised. The conditions need to be specific - e.g. whether it is lack of use of the legs, lack of hand grip, or deafness, which would make the ride unsafe.

It will be necessary to ensure that essential exclusions are made clear to the public - e.g. by signs, verbal warnings or announcements, height gauges.

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A designer of a new amusement ride needs to consider whether there are particular groups of individual who should be disbarred, on safety grounds. The foreseeable behaviour of impaired individuals needs to be considered. Once the essential exclusions have been made clear, the safety of physically impaired passengers still relies to some extent on their own assessments of their capabilities. Where a ban is needed, the wording included in the instruction manual should be as specific as possible about the passenger capabilities required to safely ride. Where relevant, this advice may need to be communicated to intending passengers, e.g. by written notices, verbal warnings, etc.

However, the enforcement of such a ban by controllers is not likely to be totally reliable. Operators and attendants will not always be aware that a particular passenger has a physical impairment. Providing the exclusions have been adequately communicated, intending passengers need to take some responsibility for deciding whether they are intended not to ride.

Most of the issues discussed in this Technical Bulletin are matters of design and the designer(s)' decisions will be independently assessed during Design Review. Any subsequent changes, or changes to mature rides, including changes to which classes of impaired passengers may or may not be permitted to ride, related notices, and associated wording in the instruction manual, should be competently assessed. They will, in most cases, constitute safety-critical modifications - the assessments therefore need to be submitted for a further Design Review.