

Standards & Related Documents Committee

TECHNICAL BULLETIN - JUNE 2000

201. Safety of Themeing / Scaffolding

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Ride themeing may include payboxes, backflashes, etc. the stability of which (e.g. in high winds) may need to be confirmed at the design stage. In addition to this type of themeing, associated with a particular ride, there may also be general site themeing. Any of these items which may be considered in any way safety-critical, e.g. as a result of collapse, have to be subject to the normal ADIPS inspections (Design Review etc.). This is clearly shown as the last item in Table 2 on page 6 of HSG175¹.

A lot of themeing dating from the 1980s in British amusement parks was based on conventional steel scaffolding as used on construction sites and there is now evidence of significant deterioration on some of this.

We note that some general themeing may not be "fairground equipment" in the meaning of the Health and Safety at Work etc Act 1974 (as amended, particularly by the Consumer Protection Act 1987). However, its stability may still be important and collapses may still come within the scope of *The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995*, if scaffolding was used in its construction.

It is thought that if scaffolding tubes and conventional clips have been employed there are some British Standards which may be useful (see BS 1139-5: 1990 and BS 5973: 1993). However, it must be remembered that the mode of use of the scaffolding is rather different from conventional use, since there will normally not be a facade to provide additional support. Also, the themeing is likely to remain in situ for a number of years and consequently it would be necessary to assume higher wind loading than for temporary structures. Conventional scaffolding is expected to have daily visual inspection and monthly certification by a person who has been on a recognised scaffolding course.

When the scaffold tubes are welded up, the normal British Standards are unlikely to apply and design first principles and calculations may need to be employed.

¹ *Fairgrounds and Amusement Parks - Guidance on Safe Practice* (HSG 175; HSE Books; ISBN 0 7176 1174 4)

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From the point of view of thorough examination of scaffolding based structures there can be problems. Such structures often contain inaccessible or otherwise uninspectable areas. In such circumstances there may be need for controllers to consider providing access or reviewing their risk assessment to decide whether replacement or other measures are needed to ensure safety.

As well as themeing there can be other temporary structures, such as grandstands for instance, which also require inspection. Some relevant advice on these (although not necessarily consistent with the draft European Standard for *Fairground and Amusement park Machinery and Structures - Safety* - prEN 13814) is available in an Institution of Structural Engineers publication :-

Temporary demountable structures: Guidance on procurement, design and use (2nd edition) Ref. Number 313 1999 A4 116 pages, Price £35, ISBN 1 874266 45 X