

# NAFLIC

*National Association For Leisure Industry Certification*

Standards & Related Documents Committee

TECHNICAL BULLETIN – SEPTEMBER 2006

## 313. Inflatable Structures

The committee has received an Operational Alert from the HSE regarding Inflatable Structures following the Dreamspace double fatality in Chester-le-Street in July this year. The document is included with this bulletin.

Members are reminded that with the design of large inflatable structures the wind loading may be the dominant loading on the structure and there have been numerous accidents resulting from inadequate anchorage of inflatable devices.

Inflatable rides and structures have been discussed previously in TB's 288, 242, 238, 203 & 42.

Committee Members:- Mr. Doug Dadswell (Chairman), Mr. Richard Barnes, Mr. Peter Smith,  
Mr. Ian Grant, Mr. John Green, Mr. Phil Mitchell, Mr. Ron Dale Dr Garry Fawcett MBE, & Mr. Dave Inman

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## **OPERATIONAL ALERT – INFLATABLE STRUCTURES**

Durham Police and the Health and Safety Executive (HSE) are involved in a joint investigation following an incident where two members of the public died when an inflatable art exhibit lifted off the ground and moved across Riverside Park on Sunday 23 July at Chester-le-Street, Co Durham.

The structure in question, Dreamspace, is described by the artist, Maurice Agis, as a piece of artwork. This operational alert is to advise police and LA colleagues about the key factors relevant to the safety of this type of structure.

Inflatable artwork structures are not strictly speaking inflatable play devices although many of them involve members of the public going inside, as in this case. In the absence of any specific standards however the guidance for inflatable play devices should be applied where relevant.

The safety of inflatable play devices depends on three main areas: design, safe operation and maintenance & inspection.

### **1 Design**

The design should have taken account of all relevant factors and be supported by design calculations. This will enable the safe operating parameters to be determined. A competent person should carry out this work.

### **2 Safe Operation**

Guidance on safe operation of play inflatables "The safe operation of play inflatables, including bouncy castles" can be found on the [www.pipa.org.uk](http://www.pipa.org.uk) web site. Key points to look out for are:

- Instability due to inadequate anchoring.
- Instability due to winds in excess of the maximum safe wind speed specified by the operator.
- Poor segregation of children; either overcrowding or lack of segregation with large more boisterous children and infants being allowed to use it at once
- Poor supervision, lack of attendants, children being allowed to bounce on the sides/front steps or climb the walls.

### **3 Maintenance and inspection.**

There are two schemes for the inspection and certification of inflatable play devices: The Amusement Devices Inspection Procedure Scheme (ADIPS) and the Performance Inflatable Play Accreditation Scheme (PIPA). Generally speaking, inflatables found at traditional fairgrounds and theme parks will have been tested under ADIPS while inflatables found at galas, fetes, hired for domestic parties etc tend to have been tested under PIPA. Both schemes are voluntary, but are considered equally able to allow operators to comply with their duties under health and safety law. If neither scheme has been used duty holders should be able to demonstrate that they have taken equally effective measures to comply with their legal obligations.

An inflatable tested under either scheme should have a safety certificate issued by an independent examiner. Each certificate will have a unique number. If there is any doubt over the status of the certificate, it can be confirmed by contacting the ADIPS Bureau (0191 516 6381) or in the case of PIPA by (i) checking the tag number of the device against the database on the web site [www.pipa.org.uk](http://www.pipa.org.uk) or (ii) by phone on 01827 52337.

Further information can be obtained from either ADIPS or PIPA, or from the Health and Safety Executive's Entertainments & Leisure Section (0141 275 3000).

Whilst these schemes do not apply to inflatable art structures, the importance of maintenance and inspection is just as valid.

### **4 Information requested**

We are aware of a number of previous incidents involving this type of structure (we are already investigating the relevance of incidents involving the same artist at the Glasgow Garden Festival and in Germany in 1980s). If you have any information which you think may assist us, please contact the Durham Police on their Incident Tel No 0191 375 2236.

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