

# NAFLIC

*National Association For Leisure Industry Certification*

## Standards & Related Documents Committee

### TECHNICAL BULLETIN - JULY 2005

#### **288. Inflatable Slide Fatalities**

The past summer has again seen a number of accidents involving tall inflatables (slides etc.) although none of the reports to which we have referred involved equipment in the UK. These accidents normally involve a collapse of upper parts of the structure. Such collapse incidents are known to have occurred in this country.

We last issued a Technical Bulletin (number 203) on this subject in June 2000 and we note that the "Titanic" type continues to feature in accidents, a number of which have involved fatalities. The draft guidance that was attached to that TB was not written with this type of inflatable device in mind. One of the matters which the text probably doesn't adequately cover is that children will be at some height above ground, imposing loads on inflated parts of a device in a way which gives them a significant structural role. In such circumstances, these locations are much more susceptible to instability of the inflated membrane if pressure drops, and this is also dependent upon the passenger loading.

Special design / design review consideration needs to be given to this type of device since the interrelationships between permitted loading, height and detail of structure, time to unstable collapse, air pressure control, and operating instructions are likely to be of considerable significance. The presence or otherwise of collapse valves in fans will also be relevant.

Apart from structural collapse, we still see regular reports of accidents resulting from insufficient anchorage in windy conditions. In a recent one in North Carolina it was said that the gust lifted the device and carried it, with several children, into power lines.

In both of these sources of fatal and major accidents, the importance of providing copies of adequate instructions to users, including those who hire-in such inflatable devices, is clear.

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