

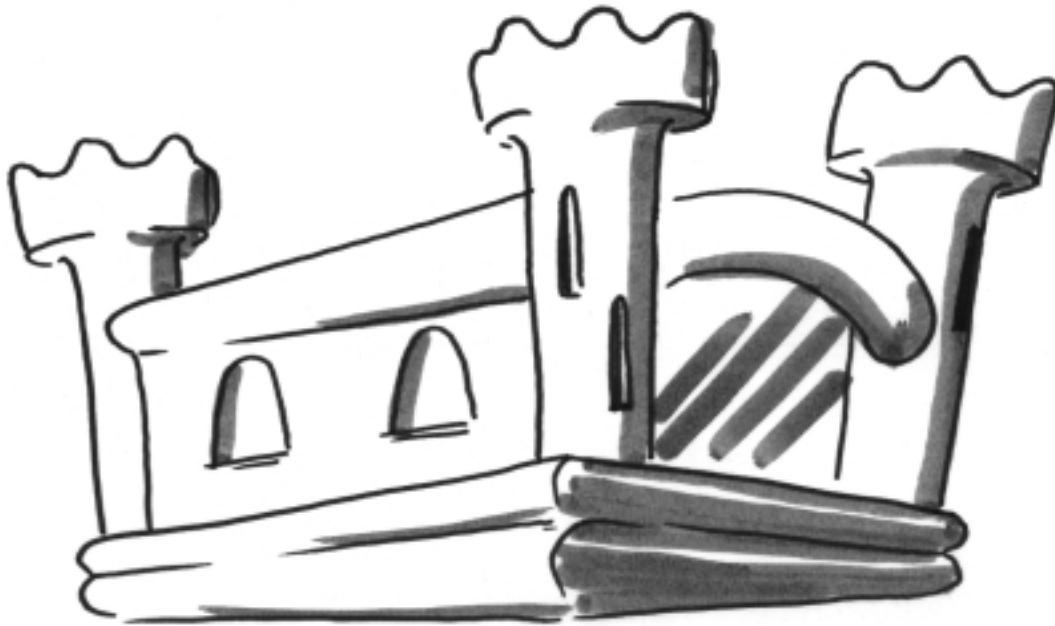
No job is more important.



Safety Alert

N°10 1998

## Inflatable Amusement Structures



An inflatable amusement structure (jumping castle) was erected and operating at a small suburban showground on a fine day with little or no wind. A sudden gust of whirly wind lifted the jumping castle, pulling some of the anchoring pegs to a vertical position and releasing the restraining ropes. Three children were thrown from the castle and received minor injuries.

### Contributing Factors

An investigation into this accident revealed that:

- a sudden and unpredictable gust of uplifting wind on an otherwise fine day was the main contributing factor
- the design of the anchoring pegs was such that, when pulled to a vertical position by the force of the wind gust, the ropes securing the structure slipped off the pegs

## Recommendations

- Use anchoring pegs that have been constructed with a restraining hook or collar at the top of the peg to prevent the attaching ropes from sliding up and being released.
- Follow the manufacturer's instructions for anchorage requirements if available. Where the inflatable structure is to be anchored on an outdoor grassed or unpaved area, pegs should be used on every anchorage point, driven at least 300 mm into the ground. If the device is to be anchored on an outdoor paved area, it should be tied on each side to a secure structure. If nothing secure is available, use a ballast system with at least eight concrete or similar blocks weighing at least 50 kg each. If the structure is to be anchored indoors, make sure that it does not move excessively.
- Monitor prevailing wind conditions and cease operation when the wind velocity approaches the maximum recommended by the manufacturer. As a general rule, when the wind velocity approaches 45 km per hour, the structure should be cleared and deflated immediately.

For more detailed information about the operation of inflatable amusement structures, refer to Australian Standard 3533 — 1997 *Amusement Rides and Devices*. This standard can be purchased from Standards Australia on (03) 6231 5885 or through the online shopping catalogue at [www.standards.com.au](http://www.standards.com.au)

If you would like further information phone Workplace Standards on  
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