**Additional Safety Risk Assessment**

**with additional checks for inflatables**

**Using information from the ADIPS Fairgrounds Safety & Health Awareness seminars on 26/2/14; 28/10/14 & 17/6/15**

**By**

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*Peter Grand from Grand Affairs Group used to operate his own inflatable equipment, before becoming a consultant on the equipment advising the HSE,*

*HSE themselves have endorsed and presented his advice to operators*

*This has been adopted by responsible operators in their operation of inflatables.*

**Safe operation of Inflatables in 2018:**

* Operation of Inflatable equipment is under the 2006 European Standard (BS EN 14960:2006): BSEN 14960: 2013 (the revised version) which came into force on March 1st 2014 with some alteration and clarifications.
* Statistically, most accidents with inflatables are the result of poor management and that it is very rare to have equipment failure with technological improvements.
* There have been four instances of ‘blow aways’ in 2013; when the water table is very high the ground becomes more unstable with greater anchorage needed.

**Blowers:**

* . The distance of the blower from the inflatable needs to be 1.4 metres to allow for the overlap on the blower attachment.
* Blowers should have the shields in place to stop injuries from children putting their hands into the blower and its exposed moving parts. There are cases where fingers have been lost due to this with prosecutions following.
* The safe distances for setting up inflatables (set out in HSG175) is 5 metres from static or moving objects, allowing for the fact that inflatables move during operation with customers on them.

**Anchorage:**

* New stronger anchor points on the inflatable are now to be used in the UK; new inflatables will already have them; older inflatables only need to have theirs replaced when that would be routinely due.
* Secondly, metal stakes need to be of a stipulated size with a minimum width of 16mm and 380mm long.
* Three metal anchors should be interlocked together on soft ground that would pull in different directions to provide adequate strength.
* Anchors need to be hammered into the ground fully to be effective and not to create a trip hazard, even to staff.
* Also, the angle of anchors should be around 45 degrees to the area of inflatable attached to; otherwise they could strain the structure and rip away.
* Additionally there should be anchorage of top parts of an inflatable, with bungee-style attachments to take up the possible movement while still providing anchorage, especially with gusting wind. This is not law but a good precautionary measure
* The angle of anchorage from height must be correct and not too sharp to be effective; working to the ratio of the distance being 50% of the height of the fixing position at the top of the inflatable should work effectively.
* Sandbags are not acceptable as weights on anchors being ineffective; 163 kilos should be on every anchor point. Using large vehicles as anchor points can help.

**Crash mats:**

* Consider the minimum height of the inflatable from the ground that would require the use of crash mats;
* Not all inflatables need them, though delegates preferred to routinely use them.
* Where they are used as a requirement, the density should be checked that it is sufficient.

**Users of inflatables:**

* All users of inflatables should be the same size
* Adults must not ride with children
* There should be a maximum number of participants related to the size of the inflatable to allow space for them to bounce unpredictably in any direction without colliding with each other.

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