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Inflatable water balls – electrical equipment near water

WorkCover Queensland, part of the Queensland Government in Australia, has issued a safety alert to warn owners and operators of inflatable water balls of the risks of using or placing electrical equipment near a pool or body of water where such attractions are operated. The devices are also known as water walkers, hamster balls and zorb water walking balls.

In relation to this, NAFLIC would refer operators to Section 720 of the British Standard on electrical regulations.

Committee Members: Mr. D Dadswell (Chairman), Mr. A Mellor (Secretary), Mr. P Smith, Mr. J Green, Mr. D Cox, Mr. I Davies, Mr. J Shilling, Mr. D Inman & Mr. R Hiscoe

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Workplace Health and Safety
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Inflatable water balls - electrical equipment near water

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Last Updated: 4/04/2018

Purpose

Background

Contributing factors

Action required

Further information

Purpose

The purpose of this safety alert is to warn owners and operators of inflatable water balls about the risks of using or placing electrical equipment near a pool or body of water where these water balls are used. The large spheres are also known as 'water walkers', 'hamster balls' and 'zorb water walking balls'.

Background

In July 2017, while conducting audits at an agricultural show in North Queensland, a Workplace Health and Safety Queensland (WHSQ) Inspector witnessed a young child use an electric leaf blower to 'shoot' three other children. All four youngsters were standing in a shallow inflatable pool. The electric leaf blower was in close proximity to the pool ahead of being used to inflate the 'water balls'. Additionally, the electric leaf blower was connected to a power supply and turned on. The inspector was able to convince the children to put the leaf blower down and move away from the area.



Photograph 1 – Inflatable water balls in use.

The risks

Electricity has the potential to seriously injure or kill. When inappropriate electrical equipment is used or placed near water, there is a greater risk of serious injury or death from an electric shock as water conducts electricity. Electricity can flow not only through a pool of water, but also along wet surfaces. Electrical hazards associated with the use of inflatable water balls that can result in an electric shock include:

- electrical equipment inadvertently coming into contact with water
- faulty or damaged electrical equipment
- water from the inflatable pool splashing onto electrical equipment.

Control measures

NEVER:

allow people to operate electrical equipment in situations where the equipment can fall into the water and potentially electrocute anyone in or on the water

leave electrical equipment where it could be picked up by members of the public (including children) and used in a unsafe way.

If electrical equipment is used near water, adequate control measures must be in place to prevent the risk of electrical shock or electrocution to workers, patrons and members of the public. Such measures include:

Only use electrical equipment designed to operate in or around water and is connected to an electrical circuit containing a safety switch or residual current device (RCD), or fitted with a portable RCD. Portable RCD's should be tested daily or before each use (whichever is longer) using the inbuilt test button and inspected every three months by a competent person.

Selection of electrical equipment used for inflatable water balls should comply with the selection of appropriate equipment requirements in AS/NZS3000: Wiring Rules, particularly in relation to the weatherproof rating (International Protection <IP> code). If possible, use non-mains powered equipment to inflate the water balls. For example, rechargeable battery powered blowers or low pressure air supply connected via a hose.

Electrical equipment not designed to operate in or around water must be located where it cannot come into contact with, fall or slide into water (this includes inflatable pools, areas where water can accumulate and splashing water).

Keep electrical cords and their connections off the ground to prevent them from:

- coming into contact with water
- becoming damaged by workers or patrons accessing the area
- becoming a trip hazard.


Only use electrical equipment in accordance with the manufacturer's instructions.

Further information

Further information can be obtained from the following:

[Electrical safety Code of Practice 2013 - Managing electrical risks in the workplace](#) (PDF, 385.51 KB)

[SafeWork Australia's Guide for Amusement Devices](#) 

[Australian/New Zealand Standard AS/NZS 3000:2007 – Electrical Installations](#)  (known as the Australian/New Zealand Wiring Rules)

[AS/NZS3000: Wiring Rules](#) 

[Electricity around water](#)

[Testing and tagging of electrical equipment](#)

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Related links

 [Electrical safety Code of Practice 2013 - Managing electrical risks in the workplace \(PDF, 385.5 KB\)](#)

[Electricity around water](#)

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