

ELECTRICAL SUPPLIES AT EVENTS MUST BE COMPLIANT AND IN PROPER WORKING ORDER, SAYS ESV

ESV issued a Safety Alert on 2 July warning registered electrical contractors, licensed electricians, exhibition venue management, exhibition and display organisers and exhibitors of the need to check – and in some instances double check – the condition and compliance of electrical equipment used at events, shows and displays.

The alert followed electric shocks received by swimmer, Brooke Hanson, and her sister, Jade, during demonstrations of a spa pool at the Swimming Pool and Spa Association of Victoria industry show at the Melbourne Exhibition Centre on 17 June 2007.

After exhaustive investigations, ESV concluded that one of the electrical leads supplied by a contractor to power the spa pool being demonstrated by Brooke Hanson did not have a proper earth connection.



Brooke in happier times.
Picture courtesy of the Herald Sun

ESV announced its findings on the Brooke Hanson incident in a media release issued on 28 June.

In the release, Director of Energy Safety, Mr Ken Gardner, said that a number of ESV investigators had spent many hours investigating the incident.

He said that although ESV had not been able to totally replicate the circumstances prevailing at the time the shocks were received, the organisation was of the opinion that one of the temporary electrical leads in use at the spa display did not have a proper earth connection and this could have caused the fault.

"As a result of the fault, some 15 volts AC of electricity would have been injected into the water resulting in a situation entirely consistent with the reports we received of what happened."

Mr Gardner said ESV investigations had shown:

- Brooke Hanson and her sister did receive electric shocks at the spa pool display;
- No fault could be detected in the permanent electrical installation at the Melbourne Exhibition Centre;



Swimmer Brooke Hanson leaves hospital after receiving the electric shock.
Picture courtesy of the Herald Sun.

The lack of earthing would have resulted in 15 volts AC being injected into the salty, ionised water of the pool – sufficient to provide a significant electric shock to a swimmer who had spent a long time in the water.

Every individual and organisation responsible for staging any event requiring electrical equipment of any sort must observe the following, said the Alert.

- All electrical equipment, such as leads, supplied and used at exhibitions must be compliant and safe;
- Registered electrical contractors and licensed electricians have a duty to ensure the required compliance and safety provisions are met;
- Check the condition of equipment to ensure there are no signs of wear and tear;
- The equipment must be tested and tagged before it is hired out;
- Flexible cords and cables used at events must not exceed the maximum lengths prescribed in Australian Standards;
- Cord extension sets should not be used while in coiled or reeled configuration;
- Management of venues, exhibition organisers and exhibitors should be aware of safety provisions and must be satisfied that electrical equipment is safe for both display staff and visitors;
- Electric shocks shall be reported immediately to centre management and event organisers.

ESV INVESTIGATIONS INTO THE BROOKE HANSON INCIDENT

- There was no fault with the spa pool which Brooke was demonstrating. The spa in question had been used at a previous show and no electric shocks were reported at that time.

Mr Gardner said ESV wished to acknowledge the help and support of a number of people in its investigations, including: Brooke Hanson, her sister Jade and their family; representatives of Melbourne's Exhibition Centre; people involved in assembling and removing the display; and the manufacturers of the spa who also arranged for representatives of a component supplier to fly in from overseas to assist with tests.

"Electric shocks suspected or otherwise must be treated seriously and investigated as to their cause. ESV's investigations have been thorough, and the need to ensure that temporary electric supplies at exhibitions and displays are in proper working order is a lesson that all the people involved should learn," said Mr Gardner.

Brooke Hanson was informed of ESV's findings.

In a media story issued later, Brooke was reported to be relieved after confirmation she'd suffered an electric shock at a pool and spa show.

Brooke collapsed after stepping out of a demonstration spa pool at the show on June 17.

She told the media: "I spent the first week after the shock sleeping 18 to 20 hours a day and having massages to help aid my recovery from the muscle spasms and muscular fatigue."

She said she began swimming lightly a week or so after the incident but did not realise the full extent of her injuries suffered from the fall from the spa until then.

"I sustained injuries to my left shoulder and neck, leaving the muscles and joints severely inflamed, requiring regular physiotherapy, massage, acupuncture and daily icing.

"Energy Safe Victoria explained to me that because I was the person in the water that I copped the full brunt of the shock," she said.

Hanson said she was now focused on regaining her health so she could prepare for the Australian short-course championships in August.

The media report also quoted Warren Anderson, director of Endless Spas, whose spa pool Brooke had been demonstrating. He said the company was relieved it had been cleared.

He said Endless Spas would now employ an independent expert to double-check electrical installation by Melbourne Exhibition and Convention Centre contractors.