



Health and Safety Bulletin No. 7

Water slide health and safety requirements

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Background

Water slides are devices that use water to enable people to slide rapidly along a static structure, mainly under gravity. They are widely found in amusement parks and entertainment centres in Western Australia.

When operated for hire or reward, water slides are items of plant classified as amusement devices under the Work Health and Safety (General) Regulations 2022 (the WHS General Regulations).

Water slides are exempt from the requirement to register plant or its design under the WHS General Regulations. However, as amusement devices, water slides must be maintained, inspected and tested as necessary and undergo an annual inspection at least once every 12 months (see Actions required below).

Summary of hazard

Inadequate design, installation, inspection, maintenance and training have contributed to serious injuries in Western Australia from the use of water slides.

The installation, testing, inspection and maintenance must meet the requirements specified by the designer or manufacturer otherwise patrons may be exposed to risks of serious injury or death. These risks may involve patrons:

- colliding in the water slide due to dual occupancy
- being ejected from the water slide and falling from a height
- being injured due to water level and flow not being maintained as per the manufacturer's specifications.

Contributory factors

Contributory factors include a lack of:

- adequate inspection and maintenance programs that were not based on manufacturer recommendations
- risk assessments conducted to identify, assess, control and mitigate risks in association with water slides in use
- appropriate training for workers or verification of competency for new workers
- proper emergency procedures for removing injured patrons from the water

- efficient communication systems between workers (e.g. slide attendant and lifeguard)
- visual checks to ensure patrons have exited the slide, with workers depending only on the traffic light mounted above each flume entry point
- maintenance and monitoring of the proper water level and flow per manufacturer's specification.

Actions required

Design

Water slides should meet the design requirements of a published technical standard or engineering principles.

Operation

A water slide must only be operated by a person who has been instructed and trained in its proper use.

The person with management or control of the water slide at a workplace must also ensure that, each day the water slide is used:

- there is a daily pre-start check
- it is operated without patrons before it is used by patrons
- the checks and operation without patrons are accurately recorded in a log book for the device.

Maintenance, inspection and testing

A water slide at a workplace must be maintained, inspected and, if necessary, tested by a competent person, and according to the:

- recommendations of the designer or manufacturer, or
- requirements of a maintenance manual prepared by a competent person.

Annual inspection

A detailed inspection of the water slide must be carried out at least once every 12 months by a competent person.

The competent person must:

- check information about the operational history since the last detailed inspection
- check the log book
- check that maintenance and inspections have been undertaken
- check that any required tests have been carried out, and that appropriate records have been maintained
- carry out a detailed inspection of the water slide to ensure it complies with WHS laws
- inspect any critical components.

Competent person

For the purpose of maintenance, inspection and testing, including the annual inspection, a competent person is someone who:

- has acquired, through training, qualifications or experience, the knowledge and skills to inspect the plant, and

- is eligible for professional engineer membership of Engineers Australia or has been determined by the regulator to be a competent person.

A person is not a competent person to carry out a detailed inspection of an amusement device that includes an electrical installation unless the person is qualified, or is assisted by a person who is qualified, to inspect electrical installations.

Log books and manuals

The person with management or control of the water slide at a workplace must keep records of the erection and storage of the device (including dates) in the log book. The log book, operating manual and maintenance manual must be kept with the water slide.

Persons involved in the commissioning, installation, use, storage and testing, and the decommissioning, dismantling and disposal, of the water slide must be given the log book, operating manual and maintenance manual.

Further information

Department of Mines, Industry Regulation and Safety

Work Health and Safety Commission

- Code of practice: *Managing risks of plant in the workplace*
- Code of practice: *Safe design of structures*

WorkSafe WA

- Information sheet: *Inflatable amusement devices*
- Information sheet: *Amusement devices – A guide for local government*

Australian Standards

- AS 3533.1 *Amusement rides and devices – Part 1: Design and construction*
- AS 3533.3 *Amusement rides and devices – Part 3: In-service inspection*