

The Operation of Giant Waterslides in the UK



***A Code of Practice for their
Safe Management and
Operation***



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Objective of Document

To provide an information base to Managers operating or planning to operate Giant Waterslides to encourage a consistent and acceptable standard of operation.

The Code of Practice aims to guide Operators to be able to:

- a. Recommend safe practice.
- b. Create a framework of research upon which to build an operational blueprint.
- c. Recommend clear rules to avoid potential accidents.
- d. Identify the importance of clear easily understood signage.
- e. Recommend support equipment to enhance supervision.
- f. Identify the importance of staffing and optimum methods of supervision.
- g. Identify the importance of staff training/communication.
- h. Promote customer care as a vehicle to educate users to use slides safely.
- i. Recommend the use of clear written instructions and operational emergency procedures.
- j. Highlight the importance of effective maintenance programmes and fault reporting.
- k. Ensure comprehensive Accident/Incident reporting.
- l. Examine areas of security.
- m. Ensure continual improvement through monitoring and review.



Preamble

The rapid growth in waterslides in recent years to meet the ever more sophisticated needs of the customer, has resulted in a knowledge gap on the part of the operator (highlighted by the S.A.I.L. Report, March 1990) and therefore a need for clear written guidelines.

This gap can be put down to a number of factors: the speed of the introduction of a new product, the lack of existing knowledge and experience in the UK and the considerable variety in the quality of guidance from manufacturers.

The S.A.I.L. research identified that quality of operational management varied from very good to unacceptable, but everyone has something to learn. This Code of Practice is intended to be read in conjunction with the S.A.I.L. Report.

The S.A.I.L. Report identifies that at least 20% of the Operators in the UK have incurred some form of litigation, which is immensely costly in terms of customer confidence. Operators have a responsibility to reduce to a realistic minimum the risk of injury.

The Institute of Baths and Recreation Management has published this Code of Practice in the hope it will help Operators to successfully address the key issues which affect quality of operation.

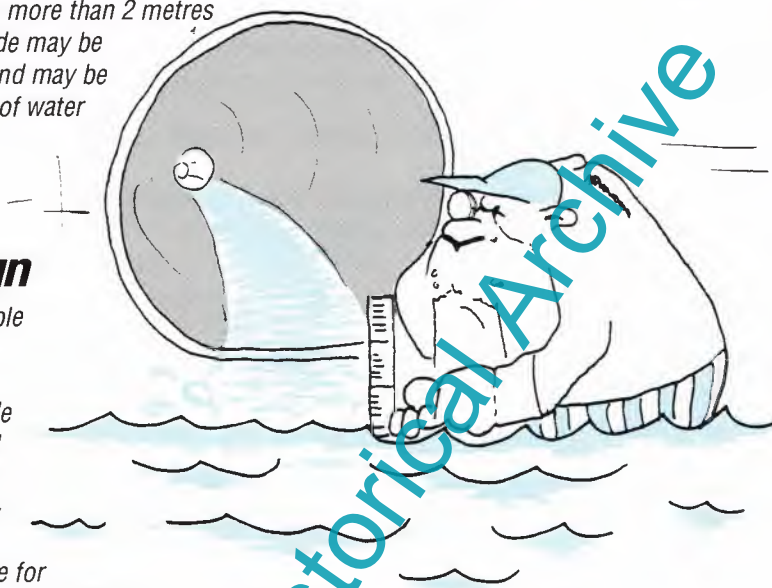
Further advice and help can be obtained from the Institute from basic advice through to a full consultancy and risk audit service.

Waterslides - A Definition

The term waterslide will be used as a generic term to include all types of slides used in Leisure locations. The definition used is that stated in the report by the Health and Safety Commission and the Sports Council's 'Safety in Swimming Pools 1988'. A slide which begins more than 2 metres above the surface of the landing pool ... A slide may be provided singly or as part of a multiple unit and may be straight or incorporate bends. A flowing film of water is usually provided to reduce friction.

Research and the Operators Role in Design

- a. The range and type of waterslides available varies considerably and the potential operator must know the market before going out to tender. The evolution of slide design has been extremely rapid and will no doubt continue to be so as operators and users demand original and challenging products. Slides may be open or enclosed tubes, range from rides suitable for all the family to freefall, be body, mat, tube or raft rides and exit into existing pool, new splash tank or aqua catch.
- b. Research other installations, talk to other Operators and their staff, look at operating policies and determine the preferred mode of operation:
 - i. Will the installation use mats or not? For instance the use of mats generally reduces the extremes of speed of descent, but mat systems have to be managed and riders can panic when losing the mat during the ride.
 - ii. What time limit and pricing policy will suit the installation? A balance should be struck between customer safety, satisfaction and throughput. Operators must decide whether to allow use by time limit, eg. one hour, or by number of rides.
 - iii. Consider
 - Staff supervision points and numbers required.
 - Supervision policy.
 - Use of special effects.
 - Filtration.
 - Customer flow at busy times (where will the congestion occur).
 - Required capacity and throughput.
 - Finishes, deterioration rate of other installations.
 - Water flow.
 - Type of ride exit, eg. Aquacatch, Splash pool.
 - Heating and Ventilation.
 - iv. The type of rides must suit the target market, whether a family type or a high thrill with drops and chicanes. The manufacturer must clarify exactly what is being offered.
 - v. The method of riding must also be specified by the manufacturer. Operators should recommend that new slides are designed for feet first riding unless there is a significant reason to the contrary, as head first riding increases the propensity to injury.
- c. Using the information gained from the research, the operator can influence the design by writing a comprehensive specification listing requirements and this helps the designer to provide what the customer wants.
- d. The Operator who knows what they want will be able to play an influential role in the design process.
- e. Research the manufacturers/designers track record, can they provide the type of installation you want?



- f. Ensure that all aspects of the design and manufacture conform to any available British or European Standards.
- g. The design parameters of the waterslide are critical to ensuring safety in operation, as no Manager can manage safely an inherently dangerous waterslide, but by being closely involved and following the points outlined in (a) to (f), Operators give themselves a better chance of preventing poor design.

User Rules

- a. Rules of use have to be sensible, simple and workable to ensure both safety and enjoyment.
- b. Close liaison with the supplier will be necessary to ensure that the slides are to be operated as they were designed to be.
- c. Consideration should be given to the following areas of customer rules:
- Method of Riding
 - Maximum riding time/session control
 - Minimum age/height requirements
 - Wearing of jewellery, spectacles, goggles, contact lenses etc.
 - Physical disbarments (eg. heart or spinal trouble, pregnancy, epilepsy, drunkenness) .
 - Skill level on different slides
 - Rider spacing
- d. They should be communicated effectively to suit the needs of the installation by signage, leaflets, handouts and staff as appropriate.



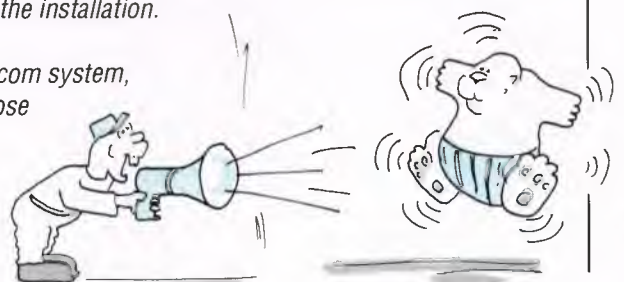
Signage

- a. Signage can be themed as part of the marketing of the installation, this will also help attract users to read them.
- b. Effective signage will help prevent accidents and aid staff.
- c. Signage should be brief, specific, simple well sited, uncluttered and of sufficient size.
- d. Consider multi-lingual implications and the use of pictorial signs for maximum impact.
- e. Draw up a signage plan which considers:
- Preventative information to be conveyed prior to purchase of ticket.
 - What information needs to be conveyed prior to entering the facility area.
 - How to use instructions immediately prior to using the facility eg. how to ride.
 - Post use instructions, eg. clear the splash tank quickly.
 - Safety signs should comply with the Safety Signs Regulations 1980 and BS 5378, Part 1.

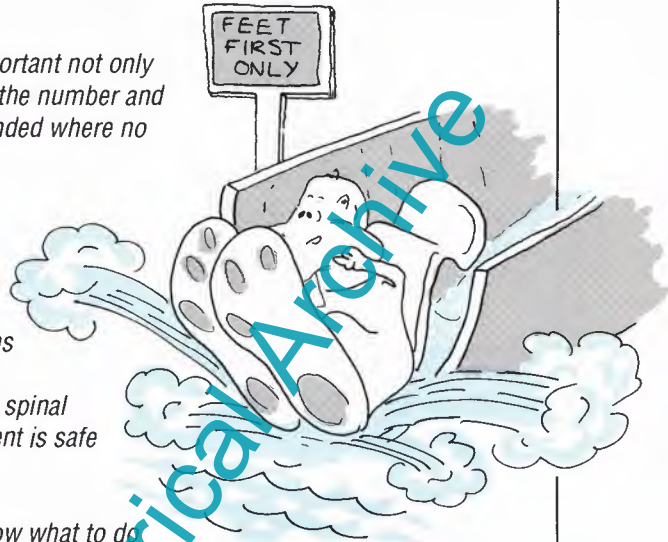


Support Equipment

- a. Support equipment plays an important role in helping the supervisory staff to operate the installation effectively. The range and nature of the provision will vary according to the installation.
- b. Effective communication between staff is essential, eg. intercom system, telephones, emergency call buttons and where necessary close circuit television.
- c. Communication between staff and users is obviously vital and where noise may be excessive, ie. at the exit of the rides, consideration should be give to voice amplification.



- d. Unless staff can visually perform the task of spacing riders, the installation of a traffic light system is essential. The optimum system is undoubtedly one designed on 'critical point' activation (with two body sensors) however a timer system in certain circumstances can be acceptable.
- e. An effective method of counting the number of descents is important not only from the promotional aspect but when quantifying risk against the number and type of accidents. The installation of ride counters is recommended where no accurate method of calculating descents is possible.



The Role of Staff

- a. Ensuring customer safety lies not just with the slide staff. Receptionists have a responsibility to uphold Centre Regulations and provide a primary user selection function. For example, the provision of accurate information that prevents a person with a spinal injury from riding. Maintenance staff ensure that the environment is safe and secure.
- b. The Ride Staff of course are at the sharp end, it is vital they know what to do and how to do it to deliver a consistent service, both at the entrance to and exit of the ride.

Supervision Guidelines

- a. Ride Staff should be issued with clear written instructions which clearly specify what is required.
- b. They should include:

- Staffing levels in each area
- The wearing of uniform
- Maximum time on supervision
- Rules of use
- Acceptable/Unacceptable behaviour
- Danger signs
- Procedure if quantity of supervision reduced (eg. rescue)
- Authorisation for changes in manning levels
- Emergency Procedures and Evacuation
- Use of communication equipment
- Dealing with Accidents/Incidents
- Reporting of faults/problems
- Importance of customer care



Training

- a. Induction - All staff who contribute to the success of waterslide installations should be thoroughly inducted, giving as far as possible an overview of the whole operation. New Staff appointed must be treated equally thoroughly. Use both practical and written tests to a specified performance standard, have a standard checklist against which to examine.
- b. Ongoing and Refresher - Plan a regular programme to cover all key areas, eg. Launch Area, Exit Area, Emergencies, run mock incidents and adapt the programme in the light of experience, eg. if an accident identifies a training need. Supervisors should also be trained to spot refresher training needs in staff.
- c. Visit other installations with the staff. Keep the training varied, enjoyable and positive.
- d. Staff must be aware of their own legal responsibilities and their duty of care.
- e. All training must be full documented with details of dates, content, who attended and who conducted the session.

Customer Care

- a. A vital part of the service is the care and attention given to the customer by the staff dealing with the public. A professional approach will help prevent accidents, increase user confidence and ultimately secure repeat business.
- b. Managers should not underestimate the time and attention needed to provide a satisfactory level of customer care as the repetitive nature of some of the work (eg. launch area) can mean boredom and a fall in concern. It is recommended that Managers use the slides themselves and spend time supervising users.
- c. It is recommended that a positive plan is implemented to address the customer care issue including regular staff meetings and feedback sessions, ongoing training and rotation of staff.

Emergency Procedures

- a. Written emergency procedures should be issued to all staff covering their roles at every stage for the following emergencies:

FIRE, BOMB, EMERGENCY FIRST AID, RESCUES, PUBLIC DISORDER, PERSONAL ATTACK, POWER FAILURE AND CHLORINE GAS LEAK.

Security

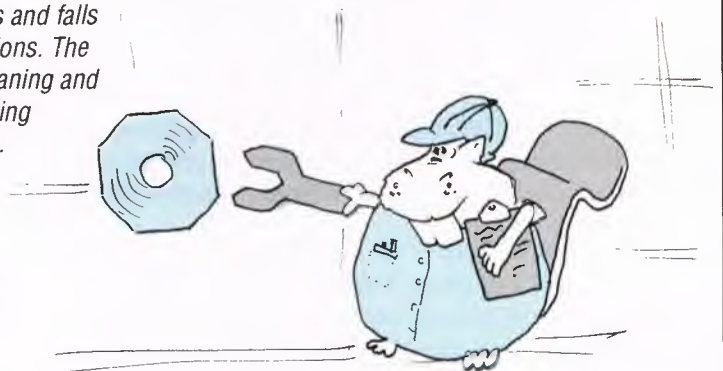
Security of the installation must be considered, ie.:

- a. External Security - If the slides go outside the building, preventative measures against vandalism are recommended, eg. fencing, intruder alarms, preventative signage and effective lighting.
- b. Internal Security - When the installation is closed, access to the launch area and slide exit area should be preventable.



Maintenance

- a. A routine maintenance programme should be operated for the plant room, launch tower (steps, finishes, lights, heating and ventilation), floor and wall areas, splash tank (finishes, lighting) and the slides themselves (internal and external).
- b. The routine maintenance programme should specify frequency of checks from every few hours for water tests to once a week for a detailed health and safety check of floors and steps.
- c. The inside surface of the waterslides shall be inspected daily before opening by suitably trained staff. It is recommended that the safety of this procedure is ensured where appropriate by use of harness equipment to reduce the risk of slips and falls and is fully clarified by detailed written instructions. The manufacturers should be asked to specify a cleaning and maintenance programme to ensure a safe working environment for staff relative to the type of ride.
- d. A regular overhaul with a planned closure should be allowed for the frequency of this being dependant upon usage. This may include overhaul of plant, maintenance to the inside of the slides, re-painting works as appropriate.
- e. Everything from water tests to major repairs must be recorded with fullest detail to give a complete picture of the maintenance works undertaken on the installation.
- f. Where appropriate, maintenance contracts should be entered into with specialist suppliers to ensure a quality planned maintenance programme.



Fault Reporting

- a. Staff must not only be trained and encouraged to report faults and problems, they must be provided with a simple and logical system to communicate problems to Management.
- b. Prompt repair is essential to not only prevent injury to users but also to maintain the staff's faith in the system.

Accidents/Incidents

- a. Staff must be trained (again with full written procedures) to deal with routine and emergency first aid incidents effectively and efficiently, providing for the continued safety of the rest of the public and the effective handling of the casualty.
- b. Accident/Incident records should be kept as recommended in the S.A.I.L. Report and contain:
 - An identification/reference number
 - Name of employee
 - Casualty details, ie. name, address, age, gender
 - Time and exact location of accident
 - Type and location of injury
 - How the accident occurred
 - Witnesses
 - Suggested source
 - Treatment given - follow up action
 - (See S.A.I.L. Report) for sample form.
- c. The Site Manager should see a copy within 24 hours to enable immediate action and feedback and to look for trends developing which if not addressed may result in serious injury.
- d. The recording system must be supported by diligent completion by staff getting maximum information from the public.



Staff Feedback

- a. Effective operation relies on staff being tuned in to a common objective, with a common understanding of what is required. Providing leadership, training and instruction is only half the answer. The provision for feedback from the staff is an integral part of accident prevention and successful operation.
- b. In addition to the fault reporting system, encourage verbal or written comments with an agreed system.
- c. Run regular staff meetings which can address staff concerns, successes and failures, changes in policy and agreement of best practice.

Monitoring and Review

- a. Review of operational procedures should be carried out in the light of experience and feedback.
- b. It is recommended that an annual review of all accidents takes place, with recommendations.
- c. All procedures should be formally reviewed at an agreed frequency.
- d. The monitoring and review process should generate action to improve the safety of operation and service delivery.



Conclusion

This Code of Practice has attempted to address the key areas for effective waterslide operation. Operators can, by implementation of sound operational procedures ensure they do everything reasonably practical to run a successful operation.

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