
Plavalni bazeni – 2. del: Varnostne zahteve za delovanje

Swimming pools - Part 2: Safety requirements for operation

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Swimming pools - Part 2: Safety requirements for operation

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Anforderungen an den Betrieb

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Foreword

This document (prEN 15288-2:2005) has been prepared by Technical Committee CEN/TC 136 "Sports, playground and other recreational equipment", the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This standard prEN 15288 "Swimming pools" consists of the following parts:

- *Part 1: Safety requirements for design*
- *Part 2: Safety requirements for operation*

Introduction

Public pools come in a wide range of types, from water parks with thousands of visitors per day, through communal pools, to hotel and guest houses. Such a wide range implies a gradation of the safety requirements, considering the specific level of hazards. It should also be considered that in certain facilities (e.g. Types 2, 3 and 4) the users will not expect pool supervision.

On the basis of a risk assessment, operators should take reasonably practicable measures to ensure the safety of users. This means that the degree of risks in a particular job/work place/facility needs to be balanced against the time, trouble, cost, benefits and physical difficulty of taking measures to avoid or reduce the risk. However, it should not be used as an excuse to avoid taking safety measures, and if unsure the operator should favour the safe approach.

Pool operators should also consider prEN 15288-1, when carrying out risk assessments.

1 Scope

This standard provides safety requirements for operating of public pools. It is intended for those concerned with the operation and management of public swimming pools. It provides guidance about the risks for staff and users associated with public swimming pools, by identifying the precautions needed to achieve safety.

This standard has limited application to pools which consist of segregated areas of rivers, lakes or the sea. The requirements for safe working methods and supervision shall be followed insofar as they are relevant.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

prEN 15288-1, *Swimming pools — Part 1: Safety requirements for design*

ISO 7001, *Public information symbols*

ISO/CD 20712-1, *Water safety signs — Part 1: Water safety signs used in workplaces and public areas*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

public swimming pool

swimming pool open to the public. The following type of public pools are identified:

Type 1: where water-related activities are the main business (e.g. communal pools, leisure pools, aquatic parks)

Type 2: where the pool is a service additional to a main activity (e.g. hotel pools, camping pools, club pools, therapeutic pools)

Type 3: domestic pools serving homes designed to be rented on a short-term/holiday basis

Type 4: domestic pools serving more than 20 homes

3.2

indoor swimming pool

one or more water areas enclosed in a building, covered by a roof (fixed or moveable)

3.3

outdoor swimming pool

one or more open-air water areas

3.4

therapeutic pool

designed to provide medical and physiotherapy care, under control of a competent person. (Pools designed for fitness and related activities are not considered therapeutic pools.)

3.5**pool basin**

each water tank where water related activities can take place

3.6**pool surround**

area around a pool basin, to do with the use of the basin itself, like circulation areas, areas of entry and exit, etc.

3.7**pool operator**

person (manager, owner, etc.) responsible for the operation of the pool in terms of health and safety

3.8**staff areas**

areas only the staff have access to

3.9**pool technical staff**

qualified people responsible for the operations of the technical equipment

3.10**supervision**

assistance to the users from qualified lifeguards

3.11**pool supervisory staff**

qualified people responsible for the supervision of users in the controlled area

3.12**poolside supervision**

the action of supervising users in water and on the pool surround

4 Organisational requirements

4.1 General

To manage effectively health and safety, pool operators shall follow four steps, considering the specific of pool facilities and related hazards:

- prepare a written statement on managing health and safety;
- define the organisation chart and the related roles and responsibilities;
- assess the risk, set related procedures and instructions to prevent and protect from the assessed risks, distribute procedures and instructions and train the staff;
- monitor the performance of the organisation and evaluate the results on a regular basis and adapt and improve the organisation accordingly.

In pools where constant supervision is not foreseen, the requirements stated below may not be fully applicable but the basic principles are always valid and shall be followed by the pool operator.

NOTE Where appropriate, technical and supervisory roles can be combined.

4.1.1 Prepare a written statement on health and safety

A written statement shall be produced, and include:

- the corporate identity policy about safety;
- the name of key individuals and their responsibilities;
- a list of hazards and the safe systems of work or precautions for avoiding them;
- arrangements for dealing with injuries, fire and other emergencies;
- arrangement for providing the instructions, training and supervision to ensure that safe systems of work are always adopted and followed;
- arrangements to ensure that employees follow the rules and precautions.

4.1.2 Define the organisation chart and the related responsibilities

An organisation chart shall be formulated, distributed and maintained. It shall include a functional job description, and shall identify who does what, when and the results expected.

4.1.3 Assess the risk, set related procedures and instructions

A specific risk assessment shall be performed for every swimming pool before it opens to the public and shall be maintained and reviewed in any case every time there is a major technical change, an accident or a series of incidents.

The aim of the risk assessment is to examine the aspects of pool operation that could possibly harm people, to:

- evaluate the severity and probability of the hazards;
- establish the necessary precautions;
- check what precautions have been taken, and act if necessary.

The necessary steps in a risk assessment are:

- looking for the hazards;
- deciding who might be harmed, and how;
- assessing the risk;
- preparing procedures and instructions;
- distributing them;
- training the staff;
- recording the findings;
- reviewing the assessment.

4.1.4 Monitor the performance, evaluate the results, adapt and improve the organisation

There shall be audits on a regular basis as part of an active management, to monitor the performance of the organisation and evaluate its results.

Actions to adapt and improve the organisation shall be taken on the basis of the evaluations and on the feedback coming from the staff.

4.2 Pool safety procedures/instructions

4.2.1 General

Procedures shall be based on risk assessment, and can include instructions.

Procedures and instructions shall be in written form and recorded, and shall comply with the following structure:

- purpose;
- field of application;
- definitions;
- allocation of roles and responsibilities;
- description of process;
- control documents (general and specific documentation, relevant to the procedure);
- controlled distribution (issue and recording of written procedure/instruction, controlled issue of the copies);
- monitor and review (monitor the effectiveness of the procedures/instructions, periodic review, responsibility of reviewing).

In the following paragraphs the essential procedures are listed. The operator shall add additional procedures, if necessary in relation to the specific facility and to the related activities.

4.2.2 Working procedures for plant and equipment

Procedures shall include at least:

- controlling access by the users (prevention of overloading and unauthorised access), see 5.1.1.4 and 5.1.1.5;
- checking the pool site, the buildings and the associated technical equipment, see 5.1.2;
- checking the pool equipment and components and the safety devices, see 5.1.3;
- cleaning and disinfecting the premises, see 5.1.4;
- the operation of water treatment systems, see 5.1.5;
- the operation of heating, ventilation and air conditioning (if any), see 5.1.6;
- the operation of lighting systems (if any), see 5.1.7;

- maintenance of the pool equipment, see 5.1.8;
- selection and safe delivery, storage, handling and use of chemicals, see 5.1.9;
- applying and controlling the chemicals in pool water, see 5.1.10;
- pool water sampling for physical, chemical and microbiological analysis, see 5.1.11.

4.2.3 Procedures and instructions for pool staff

Procedures shall include at least:

- deployment of pool supervisory staff (where appropriate);
- deployment of pool technical staff (where appropriate);
- training pool supervisory staff (where appropriate);
- training pool technical staff (where appropriate);
- structuring the duties, duty spells, job rotation, etc. (where appropriate);
- selection and use of PPE;
- recording incidents and accidents.

4.2.4 Emergency procedures

Procedures shall include preparation for, at least:

- emergency evacuation;
- fire;
- structural failure;
- responding to incidents involving bathers;
- first aid;
- disorderly behaviour;
- contact with chemicals;
- emission of toxic gas;
- lighting system failure, see 5.3.5.2;
- lightning storm, see 5.3.5.3;
- water contamination;
- water clarity failure.

There shall be a clear allocation of roles and responsibilities when external emergency services are summoned to prevent confusion with the roles and responsibilities of the swimming pool staff.

5 Operational requirements

5.1 Operational requirements for safe working practices for a swimming pool and its equipment

5.1.1 Occupancy

5.1.1.1 General

The safe level of occupancy has to be considered and defined by the pool operator on the basis of a risk assessment, considering at least:

- the design of the facility (available space, water areas, features, attractions etc.);
- the type of users and activities taking place at any one time;
- the levels of supervision actually provided.

NOTE Particular attention should be given to controlling numbers of young people who, depending on age, skills and attitudes, should be supervised by parents. Young children up to the age of 8 years should always be supervised by parents or responsible carers.

5.1.1.2 Guidance to the maximum number of users at one time in a swimming pool

The maximum number of users shall be defined by the pool operator on the basis of the results of a risk assessment which takes into account:

- the design capacity;
- the designation of the pool (e.g. swimming pool, wave pool, hotel pool);
- additional facilities and areas (e.g. saunas, rest areas, sunbathing areas, restaurants);
- the type of users (e.g. adults, children, people with disabilities);
- the pool use at any one time (e.g. training swimming, diving, water gymnastic).

NOTE 1 The presence of other user activities outside the pool surround could increase the allowed number of users in the whole pool facility.

NOTE 2 The number of users allowed in a basin should be related to the water area. A typical ratio for pools destined for swimming teaching and training is no more than one user per every 3 m² of water area.

NOTE 3 Depending on the design and the use of the pool (from outdoor leisure pools with large sunbathing areas to small hydromassage pools), the maximum number of users at a time in a pool basin should also be defined separately.

5.1.1.3 Supervision arrangements to safeguard pool users

Risk assessment will show whether poolside supervision is required. The risk assessment shall also take into account the balance between risks and prevention costs to determine when it's possible to ensure the safe use of the pool also with reduced poolside supervision or even none.

NOTE 1 Supervision is usually provided for pools Type 1. Types 2, 3 and 4, where risk are lesser, may need less supervision or even none. For an example of a checklist evaluation of supervision needs, see Annex D.

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Wherever supervision is not provided, the user shall be informed:

- for Type 3 & Type 4, in the lease or hire agreement;
- for all Types, when arriving at the facility and when passing the control point;
- for all Types, in the pool area.

NOTE 2 The risk assessment should at least recognise that the following factors decrease the risk:

- if access is restricted to authorised user groups (e.g. hotel residents, camp site users, club members, hospital staff, patients);
- enforceable house rules for safe behaviour;

and that the following factors increase the risk:

- deep water and abrupt changes in depth;
- diving from the poolside or from platforms and diving boards;
- some poolside equipment or features (e.g. starting blocks, water slides).

NOTE 3 Where a risk assessment determines that a pool does not require poolside supervision, it is recommended that the arrangements should include:

- information to users prior to entrance, including signs at the hall, in the changing rooms and in the pool area indicating that the pool is not staffed and drawing attention to simple rules of use and safety;
- signs in the pool area showing the depth of the water;
- an alarm to summon help in an emergency and a notice giving instruction in its use;
- suitable rescue equipment (e.g. poles, throwing ropes, buoyancy aids) available by the poolside, and clearly identifiable.

NOTE 4 Where a pool does not require supervision and unaccompanied bathing is permitted, it is advisable to control entering and leaving so that pool operator knows who is using the pool at any given time.

NOTE 5 Where a pool does not require supervision, arrangements for supervision may need to be made on occasions when:

- the pool will be used by unaccompanied children under the age of 15;
- overcrowded conditions are expected;
- alcohol will be available for the pools users;
- activities take place or equipment is used which can lead to additional risks through the high excitement generated.

A written safety procedure is required where a pool may be used without poolside supervision. The procedure shall be included in the pool safety operating procedures.

Whenever a public pool is in use, a member of the staff shall be designated as “on call” to respond immediately to the alarm and deal with any emergency.

NOTE 6 It is recommended that such staff are suitably trained.