

Conformity Accreditation Management System

SUGGESTED GUIDEBOOK CUM CHECKLIST FOR HYGIENE STORAGE & HANDLING OF FOOD AND NON-FOOD ITEM

The Guidelines for Safe Recreational Water Environments describes the present state of knowledge regarding the impact of the recreational use of swimming pools and similar environments upon the health of users – specifically drowning and injury, microbial contamination and exposure to chemicals. Control and monitoring of the hazards associated with these environments are discussed. The primary aim of the Guidelines is the protection of public health. The purpose of the Guidelines is to ensure that swimming pools and similar recreational water facilities are operated as safely as possible in order that the largest possible population gets the maximum possible benefit and not to deter the use of these recreational water environments.

The Guidelines are intended to be used as the basis for the development of approaches to controlling the hazards that may be encountered in recreational water environments. The information provided is generally applicable to pools supplied with fresh, marine or thermal water, whether they are indoors or outdoors; public, semi-public or domestic; supervised or unsupervised. Information also relates to public, semi-public and domestic hot tubs (which, for the purposes of these Guidelines, is the term used to encompass a variety of facilities that are designed for sitting in, contain treated water usually above 32 °C, are often aerated and are not drained, cleaned and refilled for each user) and natural spas (facilities using thermal and/or mineral water). Although bathing houses, such as hammams, are not specifically covered, the principles outlined in the Guidelines should also be generally applicable to these environments. The preferred approaches adopted by national or local authorities towards implementation of guideline values and conditions may vary between these types of environment.

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Guideline implementation:

Recreational water activities can bring health benefits to users, including exercise and relaxation. Effective management can control potential adverse health consequences that can be associated with the use of unsafe recreational water environments.

Different stakeholders play different roles in the management of the recreational water environment for safety. The typical areas of responsibility may be grouped into four major categories, although there may be overlap between these and stakeholders with responsibilities falling within more than one category:

- Design and construction. People responsible for commissioning pools and similar environments, along with designers and contractors, should be aware of the requirements to ensure safe and enjoyable use of facilities. Many decisions taken at the design and construction phase will have repercussions on the ease with which safe operation can be ensured once the pool is in use.
- Operation and management. Facility operators play a key role and are responsible for the good operation and management of the recreational water environment. This should include the preparation of and compliance with a pool safety plan, which consists of a description of the system, its monitoring and maintenance, normal operating procedures, procedures for specified incidents, a generic emergency plan and an emergency evacuation procedure.
- Public education and information. Facility operators, local authorities, public health bodies, pool-based clubs and sports bodies can play an important role in ensuring pool safety through public education and providing appropriate and targeted information to pool users.
- Regulatory requirements (including compliance). National legislation may include different sets of regulations that will apply to swimming pools and similar recreational environments. Regulation may control, for example, the design and construction of pools, their operation and management and control of substances hazardous to health. Within regulations it is likely that there will be a requirement for the use of certified material and, possibly, staff registered to certain bodies. Local regulatory oversight can support the work of pool management and provide greater public health protection and public confidence. Inspections by the regulatory officials to verify compliance with the regulations are an important component of this oversight. Successful implementation of the Guidelines will also require development of suitable capacities and expertise and the elaboration of a coherent policy and legislative framework.

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Types of users may include:

- the general public;
- children/babies;
- hotel guests;
- tourists;
- health club members;
- exercise class members (e.g. aqua aerobics);
- competitive swimmers;
- non-swimmers;
- clients of outdoor camping parks;
- leisure bathers, including clients of theme parks;
- specialist sporting users, including scuba divers, canoeists and water polo participants.

Certain groups of users may be more predisposed to hazards than others. For example:

- Children may spend long periods in recreational waters and are more likely than adults to intentionally or accidentally swallow water.
- The elderly and handicapped may have strength, agility and stamina limitations.
- Immunocompromised individuals may be at higher risk from microbial or chemical hazards.

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CHECKLIST FOR WATER & SWIMMING POOL RECREATION

SL NO.	PARAMETERS	COMPLIENCE	NON COMPLIENCE
Drowni	ng and injury prevention	<u> </u>	
1.	Prevention of Alcohol consumption		
2.	during swimming Focusing on Parenteral supervision		
3.	Prevention of Strong suction causing entrapment		
4.	Lifeguard present during the hours mentioned. And was attentive to all pool areas activities.		
5.	Pool deck was not damaged, worn or cracked.		
6.	Pool interior and tiles were free of algae, not worn or damaged.		
7.	Pool water was free of floating debris, clear & Depth markings were clearly posted.		
8.	Public restrooms stocked with sufficient hand or paper towels, soap and other required amenities.		
9.	Above-ground pools should have steps or ladders leading to the pool that can be secured and locked to prevent access when the pool is not in use.		
10.	High temperatures in hot tubs, for example, can cause drowsiness, which may lead to loss of consciousness or to heat stroke and death, and it is recommended that water temperatures in hot tubs be kept below 40 °C		
11.	Temperature extremes should be avoided by users with medical problems, pregnant women and young children.		
12.	Educational displays and warning signs, warnings from pool staff and regulations on time limits for use can reduce these adverse outcomes.		
13.	Staff did not eat, drink, smoke or chew gum.		
14.	Towels were available at convenient location; towels were free of stains and were not torn, soiled towels stowed away from guests view.		

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Microbial hazards		
1.	The result of direct animal contamination (e.g. from birds and rodents) should be protected	
2.	Non-faecal human shedding into the pool water or surrounding area which is also a potential source of pathogenic organisms should be prevented	
3.	The control of viruses and bacteria in swimming pool water is usually accomplished by appropriate treatment, including filtration and the proper application of chlorine or other disinfectants.	
4.	Any free-living aquatic bacteria and amoebae grow in pool, hot tub or natural spa waters, in pool or hot tub components or facilities (including heating, ventilation and air-conditioning systems) or on other wet surfaces within the facility to a point at which they may cause a variety of respiratory, dermal or central nervous system infections or diseases.	
5.	Frequent monitoring and adjustment of pH and disinfectant levels are essential, as are programmed 'rest periods' to allow disinfectant levels to 'recover'.	
6.	Facility operators should require users to shower before entering the water and control the number of users and the duration of their exposure.	
7.	Complete draining and cleaning of the hot tub and pipe work on at least a weekly basis, frequent backwashing and filter inspection and good ventilation are all recommended control measures.	
8.	As the primary source of these viruses and fungi in swimming pools and similar environments is infected bathers, the most important means of controlling the spread of the infections is educating the public about the diseases, including the importance of limiting contact between infected and non-infected people and medical treatment.	

Chemical hazards		
1.	Coagulants may be added as part of the water treatment process to enhance the removal of dissolved, colloidal or suspended material.	
2.	Acids and alkalis may also be added to the water in order to maintain an appropriate pH for optimal water treatment and also the comfort of bathers.	
3.	The chemical disinfectants should be used most frequently include chlorine (as a gas, hypochlorite or, generally for outdoor pools, chlorinated isocyanurates), chlorine dioxide, bromochlorodimethylhydantoin (BCDMH), ozone and ultraviolet (UV) radiation (with ozone and UV usually being used in combination with a chlorine or bromine-based disinfectant).	
4.	It is recommended that acceptable levels of free chlorine continue to be set at the local level, but in public and semi-public pools these should not exceed 3 mg/l and in public and semi-public hot tubs should not exceed 5 mg/l. It is recommended that total bromine does not exceed 4 mg/l in public and semi-public pools and 5 mg/l in hot tubs. Where chlorinated isocyanurates are used, levels of cyanuric acid in pool water should not exceed 100 mg/l. Where ozone is used, an air quality guideline of 0.12 mg/m3 is recommended in order to protect bathers and staff working in the pool building.	
5.	There should be data to indicate that the concentrations of chlorination byproducts in swimming pools and similar environments may exceed the concentrations proposed by WHO for drinking-water, the evidence indicates that for reasonably well managed pools, concentrations less than the drinkingwater guideline values can be consistently achieved.	

	AGING WATER QUALITY	
1.	Treatment (to remove particulates,	
	pollutants and microorganisms), including	
	disinfection and filtration	
2.	Pool hydraulics (to ensure effective	
	distribution of disinfectant throughout	
	the pool and removal of contaminated	
	water)	
3.	Addition of fresh water at frequent	
	intervals (to dilute substances that cannot	
4	be removed from the water by treatment)	
4.	Cleaning (to remove biofilms from	
	surfaces, sediments from the pool floor	
	and particulates adsorbed to filter materials); and adequate ventilation of	
	indoor facilities.	
5.	All users should also be encouraged to use	
<i>J</i> .	the toilets & pre shower before bathing to	
	minimize urination traces of sweat, urine,	
	faecal matter, cosmetics, suntan oil and	
	other potential water contaminants in the	
	pool and accidental faecal releases.	
6.	The choice of disinfectant depends upon a	
	number of factors, including safety,	
	compatibility with the source water, type,	
	size and location of the pool, bathing load	
	and the operation of the pool.	
7.	It is inevitable, however, that some	
	volatile disinfection by-products (such as	
	chloroform and nitrogen trichloride) may	
	be produced in the pool water and escape	
	into the air. This hazard can be managed	
	to some extent through good ventilation	
	of indoor pool buildings.	
8.	Vacuuming is another task that may be	
	required during swimming pool	
	maintenance. Debris on the bottom of the	
	pool is unsightly and provides a home for	
	algae growth. A pool vacuum should be	
0	uses suction to remove this debris.	
9.	Disinfection will also be compromised, as	
	particles associated with turbidity can surround microorganisms and shield them	
	from the action of disinfectants.	
	Particulate removal through coagulation	
	and filtration is important for removing	

10.	Coagulation, filtration and disinfection will not remove all pollutants. Swimming pool design should enable the dilution of pool water with fresh water. Dilution limits the build-up of pollutants from bathers (e.g. constituents of sweat and urine), disinfection by-products and various other dissolved chemicals.	
11.	As a rule, the addition of fresh water to disinfected pools should not be less than 30 liters per bather.	