

**Guideline No.: FH/010**

**Issue Date: 26/10/2009**

**Title: Guideline for Swimming Pools**  
**Issued by: Food and Health Department**

**Purpose:**

This is to ensure that water being use for recreational purposes by the public or common people are safe and comply with the governing standards.

**Scope:**

This guideline covers all swimming pools operating under Trakhees License.

**Definition of Terms**

Swimming Pool Any constructed pool used for swimming, bathing or wading, whether above or below the ground surface regardless of depth or water surface area.

**Requirements**

**A. Construction and Design**

- i. A swimming pool and its appurtenances shall be constructed of materials which are non-toxic to humans, inert, impervious, durable, and shall be capable of withstanding the design stresses of the particular swimming pool to be constructed, and provide a water-tight tank with a smooth, easily cleanable surface.
- ii. A swimming pool shall be constructed in such a shape and size, in order to be safely patrolled and to provide good circulation of water.
- iii. Swimming pools shall be designed and constructed to withstand anticipated structural loadings when full or empty, and that the design and materials used shall be in accordance with the generally accepted good structural engineering practices.

*(Note: For the complete and latest requirements for Swimming Pools, please refer to Building Regulations & Design Guidelines of Civil Engineering Department.)*

**B. Facilities**

- i. **Dressing Rooms:** Floors should be coved at corners, graded and drained. Matting made from natural or woven materials should not be used. Adequate artificial and natural lighting and ventilation should be provided. Benches should be constructed of smooth impervious material and if wood is used it should be maintained by tough paint in a light color. All floors, walls and ceilings should be light in color. Facilities for changing and storing clothes (Lockers \ Cupboards \ Change Room) and for washing and toilet purposes should be provided and must be easily accessible and appropriate for the number of users. Lockers should be inspected and cleaned weekly.

- ii. **Closets:** Closets should be located within the dressing room close to the pool entry. Closets should be cleaned twice daily and toilet paper provided. Provision should be made for separate disposal of sanitary pads, napkins and tampons.
- iii. **Showers:** An adequate number of showers should be located in the dressing room in positions where patrons have to pass by them before entry to the pool area to encourage pre-showering and taps for washing feet. Liquid soap should also be provided when possible. Signs should be erected to encourage showering before swimming.
- iv. **Hand basins:** Hand basins should be located adjacent to closets and liquid soap should be provided.
- v. **Toilets:** Toilets and hand washing areas must be made available. A label must be used to identify the Toilet. Hot \ cold water hand wash basin, liquid soap, disposable tissues and foot-operated covered waste bin must be available in the toilet. No sign of water spillage should be seen on the toilet floor. Adequate lighting and ventilation must be provided inside the toilet. Also, toilet door must always remain firmly closed after use. Preferably, an automatic door closer must be installed. Sufficient number of WC and showers should be provided & should always be kept clean.
- vi. **Garbage:** Proper large plastic foot operated, covered waste \ garbage containers with plastic bags should be available. No cartoon containers or loose plastic bags are allowed for collection of waste. Bins should be emptied as necessary and the garbage bagged or bin liners used.
- viii. **Test Room:** A separate area or room away from the chemical storage area should be provided where testing of pool water may be carried out. The test room should be provided with a sink and tap water.
- ix. **First Aid:** First aid equipment and a sick bay should be provided as appropriate. A First Aid Box with medicines and equipment must be provided at the premises and regularly replenished with valid shelf life medicines.
- x. **Shade:** The use of an outdoor swimming pool complex by patrons exposes them to harmful ultra violet radiation. Preferably, adequate shades must be provided for patrons.

#### C. **Equipment**

- i. Resuscitation equipment using ordinary air shall be provided at all commercial and public pools.
- ii. Life ring and lift shall be provided.
- iii. A gas mask used for the chlorine atmosphere shall be kept in an unlocked cabinet outside the chlorine cylinder room.
- iv. Disinfecting Equipment - The pool shall be equipped with suitable equipment capable of feeding disinfectants, coagulants and chemicals. Chlorine/Bromine tablets, due to its high acidity value, as well as any other chemicals shall not be placed in a skimmer.

#### D. **Operational:**

- Staff List with all related data for the staff should be kept in the premises. An updated list must be available at all times.

- All staff must have valid Work Permit and Occupational Health Card (OHC) issued by EHS-Food & Health.

**E. Hygiene:**

- **Towels:** It is mandatory washing & cleaning the towels after each use. A specific area must be designated for this purpose and must always remain clean, hygienic and regularly disinfected. Also, a separate suitable storage facility e.g. cupboards \ shelves must be available for the proper storage of clean and used towels
- All patrons (including infants) should be required to wear bathing briefs. Persons detected with open wounds, sores and rashes, infected eyes, or wearing bandages should be requested not to swim in the pool. It is prohibited to use the swimming pool from persons complaining of any communicable diseases or have any skin infections or skin lesions.
- It is prohibited to use the swimming pool from the female during the menstrual period. It is prohibited the entry of any kind of animals into the swimming pool.
- The Swimming pool shall be vacuumed, cleaned and disinfected on regular basis. And it should be free from any floating debris, sediments and/or undesirable materials.
- Walls, floors, and scum gutters should be kept free from debris, body grease and algal blooms.
- All cleaning, maintenance and repair tools \ materials must be placed inside a designated wooden cupboard \ cabin and appropriately labeled.

**F. Safety Practices:**

- Enable adequate life guarding:
  - All areas of pool visible from life guarding posts.
  - Adequate artificial light.
  - Glare does not impede underwater visibility.
  - Plain pool bottom assists recognition of bodies.
- Prevention of slip /trip/fall accidents:
  - Non-slip surrounds surfaces.
  - Area bordering pool clear of tripping hazards (e.g. pipes\equipment)
  - Temporary fixtures create no hazard when removed.
  - Pool surround sloped to drain effectively.
  - Edge of pool surround in contrasting color.
  - Steps, treads, etc. marked by contrasting color.
  - Pool and surround free of sharp edges or projections.
- Prevention of drowning incidents:
  - A qualified lifeguard is necessary at a public swimming pool. Such a person must be on duty when people are swimming.
  - In case there are children pools attached to the main pool that are used by adults, there should be in place some barricades or obstruction to avoid children from entering the main pool.
  - Steps/ladders for easy access in and out of pool.
  - Changes in depth identified by use of color-contrasted materials.

- Natural spas and hot tubs operated at temperatures below 40 °C.
- Ensuring unauthorized access is prevented.
- Installation and maintenance of appropriate water safety signage.
- Forbidding consumption or sale of alcohol at recreational facility.

**G. Testing:**

There should be daily supervision for water quality and taking samples for checking chlorine, pH, and temperature levels. These readings should be registered in a logbook. Samples should be taken once in 15 days for calcium hardness, alkalinity and cyanuric acid and these readings should also be entered in the log book. There should be a responsible person for carrying out maintenance of the swimming pool and the filtration & disinfectant system.

For Pool Water Standard Quality Requirements, please refer to Dubai Municipality - Environment Department, Environment Protection & Safety Section, Technical Guidelines Number 69: Swimming Pool Safety.

**H. Pool Filtration:**

**Outlet Drain** Outlet drain is to be located at the bottom base of the pool to drain of accumulated dirt. It also facilities to completely drain the pool for maintenance purpose.

**Skimmers** To remove floating dust, debris, leaves and oil films.

**Hair and Lint Strainers**

They catch hair and large particles which could otherwise accumulate inside the system to clog pump, piping or filter. Hair and lint strainers shall be cleaned daily to make efficient operation of re-circulation system.

**Filter** The filter removes insoluble, suspended matter from the re-circulated water. After the repeated re-circulation of swimming pool water through filter, its media voids get filled up with dirt resulting in increased resistance to flow. The filter then requires backwash operation. Three principle types of filters for swimming pool are:

1. Diatomaceous earth filter
2. Rapid sand filter
3. High rate sand filters.

Complete filter details showing position of different valves, access opening, air release valve, pressure gauges, sight glass, sampling taps at inlet, outlet pipes of filter, chemical tank details shall be available.

## References:

- Department of Health & Medical Services (DOHMS), Private Health Care Standards
- Texas Department of Health, Texas Administrative Code, Standards for Public Pools and Spas.
- World Health Organization, Guidelines for Safe Recreational Water Environments. Volume 2.
- Department of Health NSW, Public Swimming Pool and Spa Pool Guidelines. June 1996.
- Dubai Municipality - Environment Department, Environment Protection & Safety Section, Technical Guidelines Number 69: Swimming Pool Safety. April 2004.
- Trakhees, Civil Engineering Department (CED), Building Regulations and Design Guidelines