

A water feature includes all plant/equipment and components associated with that system, e.g. all associated pipe-work, pumps, feed tanks, valves etc.

Keeping the water systems clean reduces the nutrients available for bacterial growth. Regular inspections, cleaning and disinfection by the maintenance staff should be carried out to avoid the build-up of dirt, organic matter or other debris. Mechanical filtration can be used to help reduce this debris. Records for all maintenance works shall be properly maintained.

The amount of organic compounds in water is indirectly measured by measuring the Total Chemical Oxygen Demand (TCOD) and Total Biochemical Oxygen Demand (TBOD). Monitoring the levels of TCOD and TBOD determines the amount of organic pollutants found in surface water. Regular maintenance and testing of water ensure that any contamination does not become a general health hazard.

Samples should be collected from each water system having a water storage capacity more than 1,000 l and which produces spray or aerosol such as spas, fountain, waterfall systems, evaporative water coolers, misters, air washers and humidifiers. Specialised laboratories approved by Dubai Municipality shall carry out water sampling and tests and sampling for all water features. Inspection, cleaning and maintenance regimes must be revised, if any non-compliant test results are obtained. Table 406.02(1) indicates the maximum allowable water quality levels.

All test results must be recorded and kept along with the records for maintenance and remedial works, at site. Testing is not a substitute replacement for sound maintenance practices and water treatment. The requirements stated in *Regulation 406.01: Legionella Bacteria and Building Water Systems* must also be adhered.

**Table 406.02 (1): Maximum Allowable Value for Water Quality**

| Parameter                  | Units  | Maximum Allowable Value |
|----------------------------|--------|-------------------------|
| Legionella Bacteria        | cfu/l  | 1                       |
| Total Bacteria Count (TBC) | cfu/ml | 500                     |

## COMPLIANCE DOCUMENTATION

**Table 406.02(2): Documents Required**

| Project Stages                      | Submittal Documents   |
|-------------------------------------|---|
| Design Permit Application           | 1. DM BLDG Al Sa'fat declaration.   |
| Construction Completion Application | 1. Water sample analysis test report from specialised laboratory mentioning (bacteria, germs and legionella count). |
| After Completion                    | 1. Water tests and sampling reports.  |