

Clayton County Environmental Health Public Swimming Pool Program

Clayton County Board of Health Swimming Pool Regulations

Section -.16 Disinfectant Equipment and Chemical Feeders.

- (1) Disinfectant equipment and chemical feeders, hereafter referred to jointly as "equipment," shall comply with the requirements of NSF International Standard 50. The disinfection equipment shall be capable of precisely introducing a sufficient quantity of an approved disinfecting agent to maintain the appropriate recommended guidelines as outlined in Rule .17 of this Chapter.
 - (a) Every pool and spa shall be required to have at least one (1) unit of disinfectant agent equipment in compliance with Rule .16(1)(b). Additional units may be required to maintain chemical and physical parameters of the pool water.
 - (b) The pool or spa water shall be continuously disinfected by a disinfecting agent that imparts an easily measured residual. The disinfecting agent used shall be subject to field testing procedures that are simple and accurate. Gaseous chlorine, chlorine compounds, bromine compounds or other bactericidal agents shall be acceptable when meeting the disinfectant level parameters outlined in Rule .17 of this Chapter. Other bactericidal agents not outlined in Rule .17 may be used if the Health Authority can be shown test results that show the agent to be an adequate bactericide for swimming pool and/or spa use. A test kit for these other agents must be supplied to the Health Authority by the manufacturer or the pool owner. Bactericidal agents shall be registered by the U.S. Environmental Protection Agency (EPA).
 - (c) Any apparatus, device, or equipment that discharges water into the pool or that uses water from the pool as part of the operations of that device, shall either use only water that has been filtered and disinfected immediately prior to being discharged into the pool or shall have a separate disinfection system for the device. This includes, but not limited to slides, fountains, water wheels, "mushrooms", squirt guns, etc. Any water being discharged into the pool water shall have at least the same level of disinfection that is required for the type of pool that the device is in, as listed in Rule .17.
- (2) **Chemical Feeders:** The installation and use of chemical feeders shall conform to the following:
 - (a) Chemical Feeders must be installed downstream from the filter and heater.
 - (b) If the chemical feeder is equipped with its own pump, it shall be installed so it introduces the gas or solution downstream from the heater and, if possible, at a position lower than the heater outlet fitting.

- (c) Chemical feed pumps shall be wired so they cannot operate unless the filter pump is running. If the chlorinator has an independent timer, the filter and chemical feed pump timers shall be interlocked.
- (3) **Elemental (Gaseous) Chlorine:** Chlorine in the gas form may be used.
- (a) Users of gas chlorine must be trained as to the proper procedures for handling chlorine and as to appropriate emergency procedures.
 - (b) Gas chlorination equipment shall be located so that equipment failure or malfunction will have minimum effect on evacuation of pool patrons in an emergency.
 - (c) Gas chlorine feeders (chlorinators) shall be activated by a booster pump using recirculated water supplies via the recirculation system. The booster pump shall be interlocked to the filter pump to prevent feeding of chlorine when the recirculation pump is not running.
 - (d) The chlorinator, cylinders of chlorine and associated equipment shall be housed in a reasonably gas-tight and corrosion-resisting housing having a floor area adequate for the purpose. Cylinders shall always be stored in an upright position and properly secured so they can not tip over if bumped.
 - (e) All enclosures shall be located at or above ground level. The enclosure shall be provided with a motor-driven exhaust fan capable of producing at least one air change per minute. This fan must be located at the lower part of the enclosure and there must be louvers of good design near the top of the enclosure for admitting fresh air. A warning sign, stating "Chlorine Gas" shall be posted on doors. Doors to the chlorine room shall open away from the pool and be equipped with a viewing window located so that the chlorinator and the inside of the enclosure can be clearly seen prior to entering.
 - (f) Electrical switches for the control of artificial lighting and ventilation systems shall be on the outside of the enclosure adjacent to the door.
 - (g) Facilities shall include a scale suitable for weighing the cylinders.
 - (h) Connections from the cylinders to the system depend on the type of chlorinator to be used and shall comply with the chlorinator manufacturer's recommendation.
 - (i) An automatic chlorine leak detector and alarm shall be installed in the chlorinator room.
 - (j) Respirators approved by the National Institute for Occupational Safety and Health (NIOSH) shall be provided for protection against chlorine. Occupational Safety

and Health Administration (OSHA) regulations require training and maintenance programs for respirators.

- (k) Containers may be stored indoors or outdoors. Full and empty cylinders shall be segregated and appropriately tagged. Storage conditions shall: (a) minimize external corrosion, (b) be clean and free of trash, (c) not be near an elevator or ventilation system, (d) be away from elevated temperatures or heat sources.
 - (l) A specific person shall be made responsible for chlorination operations and shall be trained in the performance of routine operations including emergency procedures, leak control procedures, and maintain current documentation of their training in proper respirator use.
 - (m) Chlorine cylinders must be handled with care. Valve protection caps and valve outlet caps shall be in place at all times except when the cylinder is connected for use. Cylinders must not be dropped and shall be protected from falling objects. Cylinders shall be used on a first-in, first-out basis. New, approved washers shall be used each time a cylinder is connected.
 - (n) A safety wall chart shall be posted in or near the chlorine enclosure and a second chart in the pool office near the telephone. The telephone number of the chlorine supplier shall be shown on this chart.
 - (o) Pool personnel shall be informed about leak control procedures.
 - (p) As soon as a container is empty, the valve shall be closed and the lines disconnected. The outlet cap shall be applied promptly and the valve protection hood attached. The open end of the disconnected line shall be plugged or capped promptly to keep atmospheric moisture out of the system.
- (4) **Training:** Personnel responsible for the operation of the disinfection agent equipment shall be properly trained in the operation of that equipment, the procedure for performing and interpreting the necessary chemical field tests and the appropriate emergency procedures.
- (5) **Test Kits:** Every pool shall be supplied with an accurate and reliable testing kit capable of measuring any agent that is introduced into the water of the pool, for the determination of pH, free available chlorine (FAC), total available chlorine (TAC) if chlorine is used, bromine or other chemical disinfectant residuals, cyanuric acid (if used), total alkalinity, calcium hardness, copper and silver (if a copper or copper/silver ionization unit has been installed). The local health authority shall, upon request, be supplied a field testing kit for any agents introduced into the water supply. If a field testing kit is not available, the agent cannot be introduced until standards for testing have been established by, and written approval has been obtained from, the health authority. The Orthotolidine test (OTO) shall be unacceptable since it cannot distinguish FAC and TAC.

- (6) **Daily Record:** A daily record will be kept of all chemical testing and temperatures recorded for all spas and self inspections performed.