



WORCESTER COUNTY HEALTH DEPARTMENT

SWIMMING POOL PRE-PERMITTING GUIDE

This guide should be used before the facility is open to the public for the season and periodically throughout the operating season. This guide will be used by the Health Department during the pre-permitting inspection and the routine inspections.

BARRIER

1. The height of the barrier is:
 - a. 60 inches or higher for a semi-public swimming pool
 - b. 72 inches for a recreational swimming pool
 - c. 36 inches for a wading pool
2. Maximum vertical clearance between grade and bottom of barrier is 4 inches or less
3. The barrier does not have any openings greater than 4 inches except for the entrance gate when open
4. The barrier does not have decorative cutouts greater than 1-³/₄ inches in width
5. A chain link fence has a maximum mesh size of 2-¹/₄ inches
6. A lattice fence has a maximum mesh size of 1-³/₄ inches
7. A barrier with horizontal members less than 45 inches apart measured top to top does not have:
 - a. Vertical openings greater than 1-³/₄ inches in width
 - b. Horizontal members on the outside of the barrier
8. The barrier entry gate:
 - a. Has the release to open the door or gate located:
 - i. At least 54 inches from floor level
 - ii. Between 34 inches and 48 inches from the floor level when an electronic or combination mechanical release device is used (keyed lock, fob system, key code type system)
 - b. Hung to open away from the pool
 - c. Self-closing and self-latching for a semi-public pool
 - d. Is locked to prevent unauthorized entry outside of hours of operation
 - e. Has an opening minimum width of 32 inches
9. The barrier entry gate for a wading pool has a latch
10. Doors and windows that open into the pool area enclosed by the barrier have locks or latches to prevent unauthorized entry and do not open more than 4 inches
11. If the barrier entry gate is designated as a fire egress from a building then the pool shall be covered when not open with a cover that meets ASTM F1346-91
12. The barrier discourages climbing by preventing access to nearby structures such as light poles, furnishings or obvious footholds or handholds

DECKS

1. The deck's surface is slip resistant or nonskid
2. The expansion joint between coping and deck is sealed with a watertight sealant
3. The deck does not have or can trap dirt or harbor algae
4. Coping is wholesome, does not have sharp edges and is not loose
5. Decks do not have cracks larger than ³/₄ inches or cracks or rises which may cause a tripping or cut hazard
6. If facility has a fill spout that is not next to a ladder then it is painted or taped a contrasting color

7. The fill spout has
 - a. A rubber tip if it overhangs the coping
 - b. A brace installed if needed
 - c. An air gap of 1.5 times the diameter of the fill spout
8. Lighting, if provided, provides even illumination of the water, deck, and walkways

POOL

1. Pool walls and bottom are smooth and free from possible cut hazards or algae
2. Return covers are installed and are wholesome without cracks or breaks
3. Any plugs in the pool walls are flush so as not to create a possible cut hazard
4. Pool has two means of entry and exit consisting of either stairs, a ramp, a beach entry, ladders, or a recessed ladder with grab rails
5. Ladders and handrails are secure, not loose and have escutcheon plates installed
6. Ladders shall have a clearance from a pool wall between 3 inches and 6 inches
7. Depth markers
 - a. Installed at the water line and on the coping or within 18 inches of the pool edge
 - b. Depth markers shall indicate actual pool depth within 3 inches
 - c. Depth markers installed at intermediate increments of water depth not to exceed 2 feet
 - d. Depth markers are spaced no more than 25 feet apart
 - e. Depth markers must be 4 inches in height and have an FT or Feet
 - f. Universal symbol for "No Diving" is installed at depths under 5 feet and installed no more than 25 feet apart, required on coping not interior tile line
8. Underwater lights are installed securely and have the required light ring
 - a. If open after dark then the underwater lighting allows main drains to be sharply defined
9. Skimmers have
 - a. A vented lid
 - b. A basket that can be removed
 - c. Weirs
 - d. Suction
10. If equalizer covers are installed the skimmer has
 - a. A flow regulator (turtle) with a flap
 - b. A check valve installed on the equalizer line
11. Suction outlet covers (vacuum port, equalizer covers and main drains)
 - a. Vacuum port has a flush cover and the vacuum line valve is closed when not in use
 - b. Equalizer covers are
 - i. Wholesome and free of cracks or breaks
 - ii. Installed with stainless steel screws
 - iii. Installed according to the manufacturer's instructions
 - iv. In compliance with 15 U.S.C. §8003 (Virginia Graeme Baker Act) and have not reached their installation expiration date
 - c. Main drain covers are
 - i. Wholesome and free from cracks or breaks
 - ii. Installed with stainless steel screws
 - iii. Installed according to manufacturer's instructions

- lv. In compliance with 15 U.S.C. §8003 (Virginia Graeme Baker Act) and have not reached their installation expiration date
 - d. If the main drains are not a dual drain system or an unblockable drain then a Suction Vacuum Release System is installed
- 12. If facility is an indoor pool, a dehumidification system or a ventilation system is installed in the enclosure area. If the walls or ceiling are "sweating" then the system is not adequate enough

PLUMBING

- 1. A drinking fountain is located within the pool enclosure area or near the pool enclosure area
- 2. Hose bibs have vacuum breakers installed or a check valve installed on the water line
- 3. Backwash line has an air gap of 1.5 times the diameter of the backwash pipe
- 4. If facility has a bathroom it is provided with
 - a. Hot water for hand sink with an anti-scald protection device to limit water temperature to 115F or lower
 - b. Liquid hand soap
 - c. Paper towels or a hand dryer
 - d. Adequate lighting
 - e. Mechanical or natural ventilation

CHEMICAL STORAGE AREA AND EQUIPMENT ROOM

- 1. A lockable door with a "Caution Chemical Storage Area" sign
- 2. Has adequate floor area for safe access to all equipment and the room is clean
- 3. Sufficient lighting to be able to clearly see all equipment and gauges
- 4. Mechanical exhaust ventilation that vents to the outside
 - a. Ventilation fan is either tied to the light switch or is constantly running, may not be set to a thermostat
 - b. Adequate make-up air is provided
- 5. Water resistant data sheet is posted in a conspicuous place
- 6. Safety data sheets (SOS) are provided for any chemicals stored
- 7. Chemicals are stored in accordance with SOS
- 8. All chemical storage containers are clearly labeled
- 9. A test kit is provided which can measure
 - a. Chlorine or bromine with a OPO reagent system from a range of 0.0 to 10.0 ppm
 - b. pH with a phenol red test that can measure between 7.0 and 8.0
 - c. Total alkalinity
 - d. Calcium hardness
 - e. Cyanuric acid, if used, from a range of 0 to 100 ppm

FILTRATION AND CIRCULATIONS SYSTEMS

- 1. The following gauges are installed and functional
 - a. Pressure gauge (psi) on the influent side of filter
 - b. Pressure gauge (psi) on the effluent side of filter
 - c. Vacuum (hg) or compound gauge (hg/psi) on the influent side of pump
- 2. A flow meter with a clearly readable gradient that is able to measure the flow from minimum to maximum
- 3. There are no leaks on the filtration piping

4. If a heater is installed, a thermometer is installed on the return pipe or a digital readout is available on the heater
5. Pump and motor are sized appropriately, has a hair and lint strainer basket installed and has a bonding wire attached
6. Pump on/ off switch is clearly labeled
7. Piping is clearly labeled with the flow direction and
 - a. Main drain line is clearly labeled
 - b. Skimmer line is clearly labeled
 - c. Vacuum line (if available) is clearly labeled
8. Chemical feed systems are functional and properly installed
 - a. Chemical feed lines are installed properly and are not leaking
9. If a chemical monitoring system is installed (CAT, Polaris, etc.) it is properly calibrated

SAFETY EQUIPMENT AND SIGNAGE

1. 911 Emergency phone is installed within the pool enclosure area
 - a. If emergency phone is a cell phone then it is attached to a permanent source of electricity
 - b. The name and address for the facility is posted by the emergency phone
 - c. Phone must be able to directly reach emergency services
2. A light strong rescue pole not less than 10 feet long with a sheppard's crook installed
3. A ring buoy or rescue tube with a throwing rope attached measuring 50 feet or 1.5 times the width of the pool
4. If pool depth is greater than 6 feet 4 inches, the pool has a life-line at the transition point with floats and a tile or painted line on pool bottom to show this transition point.
5. If no certified lifeguard is provided, a sign stating, "WARNING NO LIFEGUARD ON DUTY. SWIM AT YOUR OWN RISK. DO NOT SWIM ALONE. CHILDREN UNDER 15 SHOULD NOT USE THE POOL WITHOUT ADULT SUPERVISION" is hung at all the entry points or hung in a clearly visible location that is able to be seen immediately upon entry
6. House rules and hours of operation are posted near the entry point
7. If facility has a bar a sign stating "Pool use is limited to hotel guests only" is posted or documentation is provided by the facility indicating their plan to limit use to hotel/ motel guests only
8. Lifeguards are required at all recreational pools while open to the public and are required at semi-public pools with a square footage over 2,500 from Memorial Day to Labor Day
 - a. Must have valid certification available (lifeguarding, CPR/First Aide if not part of the lifeguard training)
 - b. One lifeguard is required for every 50 people in the water unless your safety plan requires more or the sight lines are obstructed
9. Pools with a lifeguard (recreational or pools over 2,500 square feet) require the following additional safety equipment
 - a. First aid kit
 - b. Facemask for CPR
 - c. Disposable medical grade gloves
 - d. Blood borne pathogen control kit
 - e. Backboard designed for medical emergencies with a head immobilizer and straps
 - f. Rescue tube designed for lifesaving for each required guard
 - g. Lifeguard chair, elevated if needed

RECORDS

1. Daily operating records
 - a. Semi-public facilities have records recorded at least 3 times a day
 - i. Prior to facility opening
 - ii. Between noon and two
 - iii. Two hours prior to facility closing
 - b. Recreational facilities have records recorded every two hours
 1. If a chemical monitoring system is installed then records must be recorded
 1. Prior to facility opening
 2. Between noon and two
 3. Two hours prior to facility closing
 - c. The following information is recorded in the intervals above
 1. Disinfectant residual level
 - II. Combined chlorine, if chlorine is used
 - iii. pH
 - IV. Water clarity
 - v. Water temperature, if heated
 - VI. Flow rate
 - vII. Filter influent and effluent pressure
 - vIII. Pump vacuum
 - ix. Total number of bathers
 - d. The following is recorded daily if needed
 1. Time of filter backwash
 - II. An injury or accident at the facility
 - iii. Any chemicals added to the water
 - iv. Any malfunctioning or broken equipment
 - e. The following is recorded in 1-week intervals
 - i. Total alkalinity
 - ii. Calcium hardness
 - iii. Cyanuric acid, if used
 - f. Records are clearly readable and dated
 - g. Records are signed and verified by a CPO weekly
2. The Entrapment Hazards Checklist is completed by a CPO every morning prior to the facility opening and verifies
 - a. Drain covers, vacuum port covers, skimmer equalizer covers, and other suction outlet covers are in place, secure and unbroken
 - b. Skimmer baskets, weirs, lids, flow regulators and suction outlet lines are free from any blockage
 - c. Inlet and return covers or fittings are in place and unbroken
 - d. Safety warning signs are in place, including emergency instructions and phone numbers
 - e. On/ Off switch for pumps are clearly labeled
 - f. Suction vacuum release system (SVRS) if used is tested and functioning properly
3. Records are kept for a minimum of 3 years

CERTIFIED OPERATOR

1. Operator is on site at all times a recreational facility is open
2. Operator is available within 30 minutes for a semi-public facility
3. Verifies that daily operating records are being maintained by signing them weekly
4. Fills out and signs the Hazard Entrapment Checklist prior to a facility opening
5. Cleans the filtration system when the pressure differential reaches
 - a. 15 psi on a high rate sand filter or a vacuum DE filter
 - b. 8 psi on a rapid rate sand filter
 - c. 10 psi on a cartridge filter or a pressure DE filter
6. Maintains water chemistry and adds chemicals to the water as needed
7. Adds a nonstabilized oxidizer when needed

WATER CHEMISTRY AND DISINFECTANT LEVELS

1. Free chlorine maintained at a
 - a. Pool between 1.5 ppm and 10.0 ppm
 - b. Wading pool between 3.0 ppm and 10.0 ppm
 - c. Therapy pool between 3.0 ppm and 10.0 ppm
2. Combined chlorine maintained below 0.2 ppm
3. Bromine maintained at a
 - a. Pool between 3.0 ppm and 8.0 ppm
 - b. Wading pool between 4.0 ppm and 8.0 ppm
 - c. Therapy pool between 4.0 ppm and 8.0 ppm
4. pH is maintained between 7.2 and 7.8
5. Total Alkalinity is maintained between 60 ppm and 180 ppm
6. Calcium hardness is maintained between 150 ppm and 400 ppm
7. Cyanuric acid, if used, is maintained between 30 ppm and 100 ppm
8. The temperature is maintained for a
 - a. Pool under 88F
 - b. Therapy pool under 96F
9. Water clarity is maintained so that the main drains are clearly and sharply defined from the facility deck