RULES
OF
TENNESSEE DEPARTMENT OF HEALTH
BUREAU OF HEALTH SERVICES ADMINISTRATION
DIVISION OF GENERAL ENVIRONMENTAL HEALTH

CHAPTER 1200-23-5
PUBLIC SWIMMING POOLS

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1200-23-5-.01 DEFINITIONS

(1) “Alter/Alteration” means to redesign pool size, shape, piping; to change major equipment such as filter or disinfectant system; to install or remove equipment; to change classification of pool; to make any change that may affect the overall safety or effectiveness of operation, including additions or redesign of a bathhouse.

(2) “Approved” means being accepted by the Commissioner.

(3) “Bull-nosed coping” means a rounded edge of the coping that can be used as a hand-hold.

(4) “Certified lifeguard” means an individual who has a valid and current American Red Cross Lifeguard Training Certificate (or current Red Cross equivalent), or the YMCA Senior Life Saving Certificate, or the Boy Scouts of America equivalent.

(5) “Commissioner” means the Commissioner of the Department of Health or the Commissioner’s duly appointed representative, and in the event of the Commissioner’s absence or vacancy in the office of Commissioner, the Acting Commissioner.

(6) “Contractor” means a person that enters into an agreement with another person to perform specific duties and acts as a representative of the permittee or permit applicant.

(7) “Coping” means the covering which joins the top of the pool wall with the pool decking.

(8) “Deck” means the area around the pool.

(9) “Department” means the Department of Health.

(10) “Diatomaceous earth” means a type of filter media that is obtained from the fossil remains of microscopic marine plants and is used in a thin coating over filter septa or bags.

(11) “Disinfecting equipment” means any device used to mechanically supply disinfectants to the pool water.

(12) “Dive” means to plunge into the water head first.

(13) “Diving board” means a device extending over the pool for the purpose of diving to include diving towers or diving platforms.
(14) “Employee” means the permit holder, individuals having supervisory or management duties, or any other person working in a public swimming pool.

(15) “Face piping” means piping, valves, and fittings that are used to connect the filtering system together as a unit and are necessary to achieve complete filtering and backwashing functions.

(16) “Filter” means any apparatus by which water is clarified.

(17) “Filter backwash” means the process of cleaning a swimming pool filter by reversing the flow of water through it.

(18) “Filter media” means any fine grain material, carefully graded as to size, that entraps suspended particles as water passes through.

(19) “Heater” means a device through which pool water is circulated to increase the temperature.

(20) “Hydrostatic relief valve” means a device used to relieve ground water pressure imposed on the outer shell of the pool.

(21) “Hose bibb” means a water faucet with male screw threads for attachment to hose.

(22) “Law” means any provision of the State of Tennessee statutes and rules.

(23) “Lifeline” means a rope with flotation devices reaching across a pool to designate a change of slope in the pool bottom and used to separate the shallow and deep areas of the pool.

(24) “Life saving equipment unit” consists of a Ring Buoy and Shepherd’s Crook. The Ring Buoy consists of a ring at least eighteen inches (18”) in diameter made of solid, buoyant material and weighing approximately two and one-half (2½) pounds with grab line and retrieving line equal to one and one-half (1½) times the maximum width of the pool not to exceed fifty (50) feet in length. The line shall consist of one-fourth (¼) inch polypropylene, or similar type line with two (2) inch ball or “lemon” on the free end. The Shepherd’s Crook shall be large enough to encircle the entire body and be equipped with a minimum twelve (12) feet handle. Where lifeguards are required, a Rescue Tube or Torpedo Buoy may be substituted for each Ring Buoy required. The Rescue Tube or Torpedo Buoy consists of a length of tube, two(2) meters of rope and strap length.

(25) “Main drain” means the outlet or outlets on the bottom of the deep portion of the pool through which the main flow of water leaves the pool.

(26) “Main drain piping” means piping connecting the main drains to the pump suction.

(27) “Multi-family residential housing swimming pool” means a private swimming pool maintained by a homeowners association solely for the use of the members of such homeowners association and their guests.

(28) “Normal operating level” means the level of the water at the mid-point of the surface skimmer throat or at overflow gutter lip.

(29) ‘N.S.P.I. II’’ means the National Spa and Pool Institute.

(30) “Outlet” means main drain, skimmer, vacuum line, or overflow trough.

(31) “Overflow trough” means the gutter or trough around the top perimeter of a pool through which the water surface is skimmed. These troughs are sometimes referred to as scum gutters.
(32) “Owner/Operator” means the applicant, permittee, or other persons in charge of facilities.

(33) “Person” means any individual, partnership, firm, corporation, agency, municipality, or state or political subdivisions, or the federal government and its agencies and departments.

(34) “Person in charge” means the individual present at a public swimming pool who is the supervisor at the time of inspection, or if no individual is the supervisor, then any employee present.

(35) “Potable water” means water that is safe for human consumption.

(36) “Pool depth” means the distance between the floor of the pool and the normal operating level.

(37) “Pool facilities” is a general term that includes all areas of the pool. It includes, but is not limited to, the pool deck, bathhouse, fencing, filtration and safety equipment, sidewalks, and plumbing facilities.

(38) “Public swimming pool/ Public pool/ or Pool” means any pool (other than a residential or therapeutic type pool) which is used for bathing, swimming, diving, water sliding, swimming instruction, or for other recreational purposes to which admission may be gained with or without payment of a fee. Public swimming pools are listed in the following categories, based upon specific characteristics, usage and other factors:

(a) Type “A” means any pool intended for, or used by, the general public for recreational use, as well as pools not open to the general public, such as institutional, school, child care facilities, scouts, resident camps, day camps, country clubs, or pools of similar usage and type.

(b) Type “B” means swimming pools restricted to residents, members or registered guests, including pools at motels, apartments, trailer parks/mobile home parks, travel camps, condominiums, multi-family residential housing homeowner associations, and subdivisions or similar developments. Also included are YMCA, YWCA, health or athletic clubs, and pools of similar type and usage. When pools of this type are used by other persons, organizations, special groups, or by the general public, the requirements for lifeguards shall be the same as for Type “All Pools.

(c) Type “C” means wading pools.

(d) Type “D” means whirlpools, hot tubs, or other pools of similar type and usage, intended for health or recreational usage.

(e) Type “E” means water flumes, water slides, lazy river, or other similar water attraction.

(39) “Public water system” means a system for the provision of piped water for human consumption if such system serves fifteen (15) or more service connections or which regularly serves twenty-five (25) or more individuals daily at least sixty (60) days out of the year. Public water system as defined is either a community or noncommunity water system.

(40) “Rate of flow” means a quantity of water flowing past a given point in a unit of time and usually measured in gallons per minute (g.p.m.).

(41) “Recirculation system” means the entire system of pipes, pumps and filters that allow water to be taken from the pool, filtered, treated, and returned to pool.

(42) “Return inlets” or “Inlet” means the fittings or openings through which filtered water enters the pool.
(43) “Return piping” means piping which conveys the filtered water under pressure from the filter to the pool.

(44) “Residential pool” means any pool that serves no more than three living units, the use of which shall be confined to the family of each residence and their private guests.

(45) “Sewage” means human excreta, all water carried waste, and household wastes from residences, buildings, or commercial and industrial establishments.

(46) “Shall” denotes a mandatory requirement.

(47) “Skimmer” means a device, other than an overflow trough, that is used to continuously remove surface water and floating debris from a pool.

(48) “Skimmer weir” means that part of a skimmer that adjusts automatically to small changes in water level to assure a continuous flow of surface water through the skimmer.

(49) “Solid waste” means, refuse, garbage, trash, rubbish, and any other item or items which could cause an unsanitary condition or undesirable health and safety conditions.

(50) “Surge tank” means a device of such material, shape, and capacity as to adequately receive the surge water from indirect or direct overflows, so constructed and located as to be easily cleaned.

(51) “Tamper-proof” requires tools to alter or remove portions of the equipment.

(52) “Therapeutic pool” means a pool used for medical treatment under the supervision of licensed medical personnel.

(53) “Tower” means an elevated platform from which a person can jump or plunge into the pool.

(54) “Turnover rate” means the number of times a quantity of water equal to the total capacity of the pool passes through the filters in a specified period of time.

(55) “Vacuum outlets” means the fittings in the pool which are used to connect the under-water-suction cleaning equipment.

(56) “Vacuum piping” means the piping which connects the vacuum fittings to the return piping.

(57) “Wading pool” means a pool, normally intended for non-swimming children, used for wading, with a maximum depth of twenty-four (24) inches.

(58) “Water slides or Water flumes” means inclined trough(s) that convey patrons in a stream of water ending in a pool. This is not intended to include water attractions that involve a boat, “log,” or other such vessels in which patrons ride and do not normally come in direct contact with the water; nor does this include swimming pool sliding equipment.

1200-23-5-.02 OPERATIONAL REQUIREMENTS FOR PUBLIC SWIMMING POOLS

(1) The Commissioner shall evaluate and approve or disapprove design features as appropriate for operational features not specifically addressed in these regulations.

(2) Pool Facilities

(a) Bathhouse.

1. The floors and walls shall be cleaned as often as necessary to maintain sanitary conditions.

2. Plumbing fixtures shall be clean and in operating condition.

3. Toilet tissue in holders shall be provided at each commode.

4. Soap and either single service towels or air dryer devices shall be provided at lavatories.

5. Mirrors, if provided, shall be shatter resistant.

6. Facilities shall be free of trash and litter. Trash receptacle(s) shall be placed at convenient locations. Women’s bathhouse restrooms shall be equipped with covered sanitary napkin receptacles.

7. A minimum lighting level of ten (10) feet candles measured at a point three feet from the floor shall be maintained in bathhouses.

(b) Pool Enclosures. Ventilation shall be sufficient to prevent condensation and odor accumulation.

(c) Pool Surface and Facilities. The walls, bottom, fixtures, and all equipment shall be kept clean and in good repair.

(d) Walks/Decking/Pool Area. Walks, decking, and all other pool areas shall be clean and in good repair.

(3) Safety

(a) Certified Lifeguards.

1. Lifeguards shall be present at Type A pools in accordance with the following square footage schedule:

<table>
<thead>
<tr>
<th>Square Feet</th>
<th>Lifeguards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,800-3,000</td>
<td>1 lifeguard</td>
</tr>
<tr>
<td>3,001-6,000</td>
<td>2 lifeguards*</td>
</tr>
<tr>
<td>6,001-9,000</td>
<td>3 lifeguards*</td>
</tr>
<tr>
<td>9,001-12,000</td>
<td>4 lifeguards*</td>
</tr>
</tbody>
</table>

one additional lifeguard per each additional 3,000 sq. feet.
With twenty-five (25) or less pool bathers, a minimum of one (1) lifeguard is required. For twenty-six (26) to fifty (50) pool bathers, a minimum of two (2) lifeguards is required. With fifty-one (51) or more pool bathers, the square footage requirements for lifeguards will apply. Further, for pools requiring more than one (1) lifeguard, the pool area lifeguard requirements can be reduced by roping or partitioning off the unused area(s) of the pool.

2. Lifeguards shall be present at all pools having a diving board or tower that is one meter or more in height above the normal operating water level.

3. Lifeguards shall observe from the lifeguard chair except during instructional activities or during life saving or emergency type situations involving swimmers.

4. “Wave” type pools shall have a minimum of two (2) lifeguards observing from lifeguard chairs. All other “Wave” type pool lifeguards may observe from the pool deck.

5. Type E pools shall have an attendant or lifeguard on duty at all times at the point patrons/swimmers enter the water. If the view of the total length of the slide is not visible from the top to the bottom of the slide, then a minimum of one (1) attendant at the point of entering the water and one (1) monitor at the top of the slide shall be provided.

(b) Chemical Storage and Handling. Chemicals shall be kept in the original containers. They shall be used and stored in accordance with label instructions.

(c) Communicable Disease. All patrons or swimmers having a communicable disease or displaying signs and symptoms of a communicable disease which can be transmitted through normal swimming pool use shall be excluded. No person having a communicable disease or displaying signs and symptoms of a communicable disease shall work at any type pool in a function in which there is a likelihood that they would transmit the disease to any other person.

(d) Depth markers. Depth markers shall be required at all Type A, B, and E pools. The depth of the water shall be plainly marked in feet on both sides and at each end at or above the water surface on the vertical pool wall and on the coping or deck next to the pool, and at maximum and minimum depths of the pool. Depth markers shall be spaced at intervals no greater than twenty (20) feet with numerals of at least four (4) inches in height and of a color contrasting with the background. Where depth markings are required, they shall be in whole foot increments of depth, except across the shallow area and corresponding deck area. The depth shall be marked to the nearest one half (1/2) foot increment of water depth.

(e) Diving Boards/Towers. Diving board stands/towers, which were in existence and in use on or prior to May 9, 1987, at pools having dimensions less than those required by rule 1200-23-5-.03 (3) (h) will be allowed to continue in use until the diving board stand/tower is replaced.

(f) Electrical. There shall be no visible, obvious electrical hazards at any pool.

(g) Fencing.

1. All outside pools shall be protected by a wall, building, enclosure, or chain link fence with a minimum height of four (4) feet, or other functionally equivalent barriers approved by the Commissioner.

2. All openings in the barrier shall be equipped with selfclosing and self-latching hardware for the permanent locking of gates or doors.
3. Fencing and/or barriers shall be maintained in good repair.

(h) Gas Chlorination.

1. Gas chlorination equipment shall be located so that an equipment failure or malfunction will have minimum effect on evacuation of pool users in an emergency.

2. Cylinders shall be securely fastened to a wall or post.

3. Storage of any other chemicals in the chlorine enclosure shall be forbidden, except those used to check chlorine leaks.

4. When gas chlorination equipment is enclosed, the enclosure shall be provided with
   (i) air-tight ducts from the bottom of the enclosure to the atmosphere in an unrestricted area,
   (ii) a motor driven exhaust fan capable of producing at least one air change per minute, and
   (iii) automatic louvers of good design near the top of the enclosure for admitting fresh air.

5. 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.

6. Electrical switches for the control of artificial lighting and ventilation within the enclosure shall be on the outside of the enclosure and adjacent to the door.

(i) General Safety. Glass, sharp objects, or any other items which might cause injury or accidents shall not be allowed in the pool or pool area. No hazardous aspects of the operation or condition of facilities or equipment, which if not corrected are very likely to result in illness or injury, shall exist.

(j) Illumination. When night swimming is allowed by the owner/operator, uniform area lighting shall be provided for the deck area and in all cases there shall be sufficient illumination to enable all areas of the pool including the main drain to be clearly observed by a person standing at the edge of the pool.

(k) Lifeguard Chairs. one lifeguard chair shall be provided for each lifeguard as required by these regulations and shall be elevated and strategically located to provide adequate coverage of all areas of the pool. Only lifeguard chairs which are designed and manufactured for such purposes shall be used.

(l) Lifeline.

1. In all Type A and B pools in which the maximum pool depth exceeds five (5) feet six (6) inches, there shall be a lifeline located at or before the five (5) feet depth area(s) separating the shallow area(s) and the deep area(s). “Wave” type pools shall be exempted from this requirement.

2. A lifeline shall be made of approved material such as polypropylene or nylon and shall be provided with floats made of soft material of contrasting color located at not more than
PUBLIC SWIMMING POOLS  
CHAPTER 1200-23-5

(Rule 1200-23-5-.02, continued)

five feet intervals. The lifeline rope shall be a minimum of three-fourths (3/4) inch diameter and shall be attached to the lifeline anchors on both sides of the pool during all times that the pool is in operation, except during periods of competitive swimming or supervised training, or cleaning.

(m) Life Saving Equipment. All type A and B pools shall be equipped with a minimum of one (1) unit of life saving equipment, located within twenty-five (25) feet of the pool, inside the fence. one (1) unit of lifesaving equipment as defined in 1200-23-5-.01(24), shall be provided at each lifeguard chair. Further, additional units of life saving equipment shall be readily accessible and provided in accordance with the number of “Certified Lifeguards,” Rule 1200-23-5-.02(3)(a).

(n) Main Drain. Main drain grating in all types of pools shall be in place, securely anchored, in good repair and with slots not more than one-half (1/2) inch wide.

(o) Signs. At Type A, B, and C pools, where no lifeguard is required, a warning sign with clearly legible letters at least 4 inches in height shall be placed in plain view stating “WARNING NO LIFEGUARD.” No diving sign(s) shall be displayed in conspicuous locations at all pools not meeting the minimum requirements for diving. The sign shall read “NO DIVING;” with minimum four (4) inch lettering.

(p) Starting Blocks Used for Competitive Swimming. Starting blocks shall not be used for any purpose other than for competitive swimming nor at any time other than during competitive swimming activities.

(q) Steps, Ladders - Steps and ladders shall be maintained in good repair and be free of hazards.

(r) Telephone for Emergency. All pools shall have telephone service on the premises which can be accessed without the use of coins. A list of clearly visible emergency phone numbers to include the nearest emergency and medical services shall be posted next to the telephone.

(4) Water Quality

(a) Microbiological Test. Pool water sample analysis shall be in accordance with these rules. A sample shall be considered positive and unacceptable if it exceeds four (4) total coliform bacteria per one hundred (100) milliliters of sample using the Chromagenic Substrate Test.

(b) Chemical Tests.

1. The Hydrogen Ion Concentration (pH) of the pool water shall be maintained at a level between 7.2 and 7.6 when the pool is open for operation.

2. Total alkalinity in pool water shall be at a level between eighty parts per million (80 ppm) and two hundred parts per million (200 ppm).

3. The cyanuric acid level shall not exceed one hundred parts per million (100 ppm).

(c) Sanitization.

1. Free available sanitizing residuals in pools for currently approved agents shall be as follows:

   (i) Type A, B, C, & E pools

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>0.5 - 3.0 ppm</td>
</tr>
</tbody>
</table>
(Rule 1200-23-5-.02, continued)

<table>
<thead>
<tr>
<th>Disinfectant</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromine</td>
<td>2.0 - 5.0 ppm</td>
</tr>
<tr>
<td>Polyhexamethyl biquanide</td>
<td>30 - 50 ppm</td>
</tr>
</tbody>
</table>

(ii) Type D pools

<table>
<thead>
<tr>
<th>Disinfectant</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine</td>
<td>1.0 - 3.0 ppm</td>
</tr>
<tr>
<td>Bromine</td>
<td>3.0 - 5.0 ppm</td>
</tr>
<tr>
<td>Polyhexamethyl biquanide</td>
<td>30 - 50 ppm</td>
</tr>
</tbody>
</table>

2. Disinfectants of quality equal or superior to chlorine or bromine compounds that are registered by the Environmental Protection Agency and approved by the Department may be used.

3. Other disinfecting methods or materials may be used if they have been adequately demonstrated to the Department to provide a satisfactory residual effect which is easily measured or where demonstration and analysis provide assurance that results are otherwise equally effective under condition of use as the chlorine concentration required herein. Disinfecting methods or materials shall not be dangerous to public health, create objectionable physiological effects, or import toxic properties to the water.

4. Sanitizing agents shall be dispensed into the pool water automatically with the exception of polyhexamethyl biquanide. The equipment shall be designed specifically for the type of disinfectant to be used. The equipment shall be of sufficient capacity to maintain the recommended disinfectant residual in the pool. Disinfecting equipment shall be provided with controls for adjusting the rate of flow.

5. Hand chlorination is not acceptable, except for emergencies, infrequent chlorination purposes, or as approved by the Department where specific circumstances necessitate such dispensing.

(d) Testing Equipment. Testing equipment complete with reagents shall be provided at the pool for the determination of residual disinfectant, pH, total alkalinity, and cyanuric acid of the pool water. The diethyl-p-phenylenediamin (DPD) method shall be used for the determination of disinfectant residual. The range of testing equipment shall be capable of testing all levels as set forth within these rules. Reagents shall not be outdated or otherwise ineffective.

(e) Visual Tests.

1. Water shall be sufficiently clear to allow a viewer to clearly distinguish gratings (openings) of the main drain(s) when standing at the edge of the pool deck.

2. There shall be no algae visible in a pool.

3. There shall be no foreign material visible in a pool.

(f) Water Level. The water level in swimming pools with overflow gutters shall be maintained at the break over level. The water level in swimming pools with skimmers shall be maintained at the midpoint of the skimmer throat.

(g) Water Temperature. Pool temperature shall not exceed one-hundred-four (104°F) degrees Fahrenheit. Type D pools shall be equipped with a non-breakable thermometer located in the water.

(5) Water/Waste Water
(Rule 1200-23-5-.02, continued)

(a) Cross-Connections. There shall be no cross-connections within any portion of the pool facilities. Hose bibbs shall be equipped with an approved anti-siphon prevention device.

(b) Sewage Disposal. Sewage shall be disposed of according to law.

(c) Water Supply. All water used in drinking fountains, lavatories, showers, or hose bibbs shall be from potable water sources. Any water supply, other than an approved public water supply, shall have water tested at least annually and as often as deemed necessary by the Commissioner.

(d) Water Supply. All water used to fill a pool shall be of a potable source or a source that is acceptable to the Commissioner.


1200-23-5-.03 MINIMUM DESIGN STANDARDS FOR PUBLIC SWIMMING POOLS

(1) General

These design standards shall apply to all public swimming pools constructed or altered after the effective date of these rules. All definitions and requirements in the law and regulations are also considered a part of these standards. For design features not specifically addressed in these regulations (1200-23-5-.03), the Commissioner shall evaluate same and approve or disapprove said design features as appropriate.

(2) Plans And Specifications For Review

(a) No person shall begin construction of a public swimming pool or shall alter or reconstruct any public swimming pool without first having submitted plans and specifications to the Department for review and having received approval. All plans and specifications shall be submitted in duplicate.

(b) No permit to operate a constructed, altered, or reconstructed swimming pool shall be issued unless said pool design has been approved by the Commissioner.

(c) All types of pools shall be designed and constructed to withstand all anticipated loads and for both full and empty conditions. A hydrostatic relief valve shall be provided in each main drain. The designer or architect or engineer shall certify the structural stability and safety of the pool in the plans and specifications submitted.

(d) Plans shall be drawn to scale and include:

1. the name of facility, location, and names and addresses of all owners and operators;

2. the perimeter, surface area, volume of the pool, total deck area, turnover rate, and maximum bather load,

3. a detailed layout of pool, including fencing, all pool facilities and related structures;

4. top and cross-sectional diagrams with dimensions so that depths and clearances may be determined for all areas of the pool;
5. all equipment (fittings, ladders, diving boards, main drain(s), surface skimmers, overflow gutters, inlets, lights, and other applicable equipment-) with spacing with dimensions;

6. layout and slope of deck area, indicating size, location of hose bibb(s) depth markings, deck drains, and area to be lighted;

7. plumbing diagram showing all pipe sizing and location;

8. equipment room diagram showing layout and elevation, sump, floor drain(s), and other equipment and facilities;

9. complete equipment list with manufacturer specifications to include model, model number, size, capacity, horsepower;

10. source(s) of water;

11. method of sewage disposal;

12. design of gas chlorination system, showing location in relation to the pool and other structures; and

13. other information as requested by the Department.

(e) After all piping has been installed and before it is covered, the owner or operator shall notify the Department so that a complete piping inspection can be conducted. The owner or contractor shall notify the Department at other specified stages of construction for interim inspections, if such a request is made.

(3) Design Standards

(a) Bathhouse facilities shall be provided within two hundred (200) feet for all Type “All pools. At Type B, C, & E pools, bathhouse facilities shall be provided within eight hundred (800) feet of the pool. Bathroom facilities used in conjunction with living or lodging can be substituted for criteria as set forth in the following subparagraph, “Bathhouse Facilities.”

(b) Bathhouse Facilities

1. Toilet and shower facilities shall be provided in the following ratios for the number of swimmers indicated or major fraction thereof:

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Closets</td>
<td>1/75*</td>
<td>1/50*</td>
</tr>
<tr>
<td>Urinals</td>
<td>1/75*</td>
<td>---</td>
</tr>
<tr>
<td>Lavatories</td>
<td>1/100*</td>
<td>1/100*</td>
</tr>
<tr>
<td>Showers</td>
<td>1/50*</td>
<td>1/50*</td>
</tr>
</tbody>
</table>

*Number of swimmers

2. Hose Bibbs shall be provided for flushing down dressing rooms and bathhouse interior. Each hose bibb shall be equipped with an approved anti-siphon prevention device.
3. Floors of the bathhouse shall be of impervious material, graded to drain, smooth and with a nonslip finish. Floor drains shall be located to ensure drainage of all parts of the building.

4. All dressing room booths, if provided, shall be made of durable materials.

5. Lighting and Ventilation. All bathhouse shower and dressing room areas shall be ventilated and lighted. Minimum lighting in dressing room areas shall be not less than ten foot candles at a point three feet from the floor. Ventilation shall be sufficient to prevent condensation and odor accumulation.

6. Soap dispensers shall be provided at each lavatory and shower head at the rate of one dispenser for every two lavatories and each shower head. The use of bar soap is prohibited.

7. Water under pressure shall be provided at all showerheads and lavatories. The actual rate of flow shall be in accordance with current Southern Building Codes Standards. Hot water shall be a minimum of 90°F and shall not exceed 120°F.

8. Towels. Single service towel holders or blower type hand dryers shall be provided at each handwashing facility at the rate of one approved dispenser per four lavatories.

9. Facilities shall be finished in light colors and designed so that good sanitation can be maintained.

(c) Coding of Piping And Equipment - All piping, valves, and equipment are to be labeled with legible print stating the following:

1. water lines - potable;

2. recirculation filtered, skimmer or gutter return, main drain;

3. chemical lines alum, chlorine (gas and solution) soda ash, acid;

4. waste lines - backwash waste, sewer (sanitary or otherwise), deck drains; or

5. other - Compressed air, gas (natural or bottled).

(d) Construction Material And Finish

1. Swimming pools shall be constructed of materials that are inert, non-toxic, impervious, permanent, and enduring. The materials shall be able to withstand the design stresses and be water tight, with a smooth and easily cleaned surface. The materials shall be finished in a white or light color.

2. Sand, earth, or vinyl liners are not permitted in swimming pool construction.

3. All sections of a flume or slide for Type “E” pools shall be designed and constructed to prevent abrasion or injury. All surfaces shall be sealed and smooth.

4. Steps, ledges and/or seats inside Type A, B and C pools, located below the normal water level, shall be clearly identified or be colored in contrast with the rest of the pool shell’s interior.
(e) Deck Areas

1. Deck areas shall be continuous around the pool with a minimum width as follows:
   
   (i) Type A: eight (8) feet;
   
   (ii) Type B: six (6) feet;
   
   (iii) Type C: four (4) feet;
   
   (iv) Type D: no minimum requirement; and
   
   (v) Type E: eight (8) feet around the exit of the landing pools, four (4) feet around the starting point.

2. A minimum of three (3) feet of deck width shall be provided on the sides and rear of any piece of diving or sliding equipment and lifeguard chairs.

3. The deck shall be constructed of slip resistant material and have a finish that will be of no hazard to bare feet. It shall have a slope of not less than one-fourth (1/4) inch nor more than three-eighths (3/8) inch to the foot and shall be so designed as to conduct drainage away from the pool area in a manner not to create or maintain standing water. All deck drainage shall be "to waste." Deck drains shall be installed where necessary to prevent standing water.

4. Hose bibbs shall be provided around the perimeter of the deck area at intervals such that all parts of the deck can be reached with a hose.

(f) Depth. The beginning depth in the shallow portion shall not be less than three (3) feet and shall not exceed three (3) feet six (6) inches, except for restricted use pools, such as competitive swimming, diving, wading pools, wave-pools, or zero entry pools.

(g) Depth Markers At All Type A, B, And E Pools. The depth of the water shall be plainly marked in feet on both sides and at each end at or above the water surface on the vertical pool wall and on the coping or deck next to the pool and at maximum and minimum depths of the pool. Depth markers shall be spaced at intervals no greater than twenty (20) feet with numerals of at least four (4) inches in height and of a color contrasting with the background. Where depth markings are required, they shall be in whole foot increments of depth; except across the shallow area and corresponding deck area. The depth shall be marked to the nearest one half (1/2) foot increment of water depth.

(h) Diving Area/Equipment

1. where diving boards or towers are provided, minimum dimensions of pools, maximum clearances from diving board(s), and other required dimensions for diving equipment and pools shall be in accordance with Figure 1.

2. Diving boards and towers in excess of three (3) meters in height are prohibited in a public swimming pool, except for pools specifically designed and used for competitive type diving and instruction.

3. At least fifteen (15) feet of unobstructed vertical distance shall be maintained above any diving board. This fifteen (15) feet height shall extend ten (10) feet to each side and
sixteen (16) feet ahead of the front end of the board. If a pool has more than one diving board, the above distances shall be provided for each board or tower.

4. All steps, platforms, towers, and diving boards one meter in height or greater shall be provided with handrails that extend to inside of coping edge.

(i) Drinking Fountain - At least one (1) approved drinking fountain shall be provided within 200 feet of Type A pools.

(j) Electrical

1. Electrical equipment for all pool facilities shall conform with all applicable local codes and the National Fire Protection Association’s National Electric Code.

2. Overhead wiring, not in conduit, shall not pass within an area extending a distance of twenty (20) feet horizontally away from the inside edge of the pool walls, diving structures, observation stands, towers, or platforms.

(k) Equipment Room(s) or Enclosure - An enclosed area shall be provided that will prevent unauthorized access to all chemical feeders and filtration equipment. It shall be illuminated, ventilated, and sized for ease of operation and accessibility.

(l) Fencing.

1. All outside pools shall be enclosed by a chain link fence or equal barrier of minimum four (4) feet in height.

2. If picket type fencing is used, the spacing between pickets shall not exceed four (4) inches. The top of the bottom rail shall not exceed four (4) inches above grade, and the top rail shall be no less than forty-three (43) inches above grade.

3. All access openings in the fence or barrier shall be equipped with gates or doors with self-closing and self-latching mechanisms and hardware for permanent locking. Fencing and/or barriers shall be maintained in good repair. All pools shall be protected by a wall, building, enclosure, or link fence with a minimum height of four (4) feet, or other functionally equivalent barriers approved by the Commissioner.

(m) Fill Spout. The fill spout shall be located underneath the diving board or within four (4) inches of a pool ladder and not protrude beyond the edge of the pool. If the pool has no diving board or ladder, the fill spout shall not extend beyond the edge of the pool coping or otherwise be located so as to create a tripping hazard.

(n) Filters

1. Diatomite Filters. The filter rate for diatomite filters shall not exceed one and one-half (1.5) gallons per minute per square foot of filter surface area.

2. Sand-High Rate. Filter rate shall not exceed fifteen (15) gallons per minute per square foot of filter surface area. The filter(s) shall be provided with pressure gauges for determining the need for backwashing, backwash sight glass, and air-relief device. The backwash rate shall not be less than the filter rate.
3. Cartridge. Filters shall be of a disposable or washable element. Rate of flow shall not exceed 0.375 gallons per minute (G.P.M.) per square foot of filter surface area at all type pools. One extra complete set of filter units shall be on hand at all times at the pool.

4. Other filters. Any filters other than those described above that are functionally equivalent may be approved by the Department.

5. Pool designer shall identify procedures or methods for backwashing and/or cleaning filters.

6. All type filters shall comply in all respects with the Standards of the National Sanitation Foundation covering such filters.

(o) Filter Backwash. Backwash from the filter(s) shall be piped to a sanitary sewer or other disposal method approved by the Department. In all cases of filter backwash discharge, an air-gap shall be provided with a minimum of six (6) inches between the discharge pipe and top of the sump or sewer piping. Both the sump and the exit pipe shall be sized to accommodate the backwash flow.

(p) Gas Chlorine

1. Chlorination equipment shall be located so that an equipment failure or malfunction will have minimum effect on pool users or other adjacent facilities in an emergency.

2. Facilities for securing cylinders shall be installed.

3. If installed below grade or within an enclosure, the area shall be provided with

(i) an air-tight duct from the bottom of the enclosure to atmosphere in an unrestricted area,

(ii) a motor driven exhaust fan capable of producing at least one air change per minute, and

(iii) automatic louvers of good design near the top of the enclosure for admitting fresh air.

4. Elemental chlorine feeders shall be activated by a booster pump and solenoids using recirculated water supplied via the recirculation system. The booster pump should be interlocked to the filter pump to prevent feeding of chlorine when the recirculation pump is not running.

5. 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.

6. Electrical switches for the control of artificial lighting and ventilation within the enclosure shall be on the outside of the enclosure and adjacent to the door.

(q) Hair/Lint Strainer. A corrosion-resistant strainer (except for Vacuum Diatomite Filters and Vacuum Sand Filters) located on the vacuum side of the filtration pump shall be provided to remove solids, debris, hair, and lint.

(r) Lifeline. In Type A and B pools where the maximum pool depth exceeds five (5) feet six (6) inches, there shall be a lifeline, provided with floats made of soft material of contrasting color located at not more than five (5) feet intervals, separating the shallow and the deep end at or
before the five (5) feet- depth area. The lifeline shall be made of polypropylene or nylon, be a minimum of three-fourths (3/4) inch diameter, and be in good condition. “Wave” type pools shall be exempted from this requirement.

(s) Lifeguard Chairs. There shall be a minimum of one (1) elevated lifeguard chair provided for all Type “A” pools with a minimum of eighteen hundred (1,800) square feet of pool surface area. The number of square feet with required number of lifeguard chairs shall be as follows.

1. 1,800 - 3,000 1 lifeguard chair
   3,001 - 6,000 2 lifeguard chairs
   6,001 - 9,000 3 lifeguard chairs

2. An additional chair per each additional 3,000 square feet.

3. All other pools shall meet the same requirements relative to lifeguard chairs as Type “A” pools when there is a diving board of one (1) meter or more.

(t) Lighting

1. Artificial lighting shall be provided at all pools that are to be used at night or which do not have adequate natural lighting. A minimum of five (5) feet candles per square foot at the deck level shall be provided.

2. Underwater lighting shall be provided at all pools. Such lighting shall be not less than 0.5 watts per square foot of pool surface area. Lights shall be positioned so that all portions of the pool are clearly visible to an observer on the pool deck.

3. overhead Lights. There shall be no light fixtures directly above the water surface.

(u) Main Drain

1. All pools shall be provided with main drain outlets at the deepest point of the pool. All pools shall have a minimum of two (2) interconnected main drains. Jet pump type systems shall be connected to multiple (two minimum) main drains.

2. Each floor outlet grate area shall be such that when the maximum flow of water is being pumped through the floor outlet, the velocity through the open area of the grate shall not be greater than two (2) feet per second. Floor outlet grates shall be anchored, tamper proof with slots not more than one-half (1/2) inch wide.

3. When the outlet grates are of the anti-vortex type, maximum entrance velocities may be increased to six (6) feet per second. All main drains shall be of corrosion-resistant materials.

(v) Operation Instructions

1. Upon completion of the pool, the builder shall give the owner and/or operator complete written instructions on the operation and maintenance of the pool and equipment.

2. These instructions, including the valve schedule, shall be supplied in not less than two (2) copies. one copy shall be encased in a waterproof covering available to the pool operator and to the Department’s representative during inspection.

(w) Overflow Gutters
1. Overflow gutters shall be required on all pools with a surface area greater than or equal to 5,000 sq. ft. Pools of less than 5,000 sq. ft. shall have overflow gutters or be equipped with at least one skimmer for each 500 square feet or fraction thereof.

2. Overflow edge of the gutters shall be level within 1/8 inch and extend completely around the pool except at steps, ramps, or other fixtures approved prior to construction.

3. The opening into the gutter beneath the coping shall not be less than four (4) inches. The interior of the gutter shall have a width and depth of at least three (3) inches and be designed to prevent entrapment of bathers’ arms and legs. The overflow edge of the lip shall serve as a handhold and be rounded.

4. The overflow system shall be capable of continuously removing 50 percent or more of the recirculated water and returning it to the recirculation system through a surge system with a capacity of not less than one gallon for each square foot of pool surface area.

5. The gutter drain outlets shall be constructed of a non-corrosive material and shall be placed on a maximum of fifteen foot centers. The gutter bottom shall slope toward these outlets with a minimum slope of one-eighth (1/8) inch per foot or be designed to continuously flush the gutter bottom.

(x) Piping - Piping shall be stainless steel, National Sanitation Foundation (N.S.F.) swimming pool approved reenforced flex pipe or water type PVC schedule 40 or better. Suction piping shall be designed to move the required quantity of water at a maximum velocity not to exceed six (6) feet per second. The face piping shall be sized as indicated in Tables I, II, and III. Return piping system shall circle the pool and shall not be reduced in size from the face piping size more than one standard pipe size at the “T” and one size for each two (2) inlets on each side of the “T”. Reduction of piping size and number of inlets shall be balanced by having an equal number on each side of the “T”.

(y) Pool Heaters - A heater thermostat shall be provided that will turn the heater off should the pool temperature go above one hundred four degrees Fahrenheit (104°F). A heater bypass and valve equal in size to the return face piping requirement shall be provided when the heater core size is smaller than the return face piping.

(z) Pool Inlets

1. Inlets shall be spaced not over twenty (20) feet apart, with one inlet within 5 feet of each corner of the pool and one in each recessed area or recessed step area. They shall be located at least twelve (12) inches below the normal operating water level.

2. Inlet fittings shall be of the adjustable rate-of-flow type. Directional flow inlets shall be used with skimmer type pools. Inlets shall not protrude from the floor or wall to create a hazard.

3. All type pools shall be required to install a minimum of two (2) inlets.

(aa) Pressure Gauges. Pressure gauge(s) shall be installed and maintained on the influent side of the filter (high rate sand filter), read in pounds per square inch (psi), and maintained in an operational condition. Pressure gauge(s) on other sand filters and other type filters shall be installed according to manufacturer specifications.

(bb) Pump And Motor
1. The pump and motor shall be of adequate size and capacity to provide the required pool turnover rate, and shall be located to eliminate the need for priming. The pump design shall be based on an assumed total dynamic head of not less than fifty (50) feet of water. The following items or systems are prohibited:
   (i) split systems
   (ii) dual pumps wired to separate switches
   (iii) multi-speed pumps

2. A corrosion-resistant strainer located on the vacuum side of the filtration pump shall be provided to remove solids, debris, hair, and lint.

3. Minimum size in horsepower shall conform to applicable criteria in Tables I, II, or III of these rules or by the manufacturer’s pump curve.

   (cc) Rate Of Flow Indicator. Public pools shall be provided with an operational rate of flow indicator that reads in gallons per minute (G.P.M.) located on the discharge line from the filter as per manufacturer specifications.

   (dd) Recirculation System

   1. The inlet side of the recirculating system shall be designed to achieve the required turnover rate. The recirculation system shall be designed to have the capacity to
      (i) flow fifty (50) percent through the overflow or skimming facilities and fifty (50) percent through the main drains,
      (ii) eighty (80) percent of the recirculation through the overflow or skimming facilities, and
      (iii) one hundred percent (100) through the main drain(s).

   2. The recirculating system shall be designed in accordance with Tables I, II, or III of these rules.

   (ee) Sewage Disposal. Sewage shall be disposed of according to law.

   (ff) Sidewalls. Sidewalls of the pool design shall be as shown in Figure 1. Ledges and/or seats inside the main pool body, below the normal water level, shall conform to the minimum N.S.P.I. standards. The top of the pool wall shall be uniformly level and designed with bull nosed coping or some other acceptable means by which an adequate handhold is provided around the entire pool perimeter. All junctions of walls and floors shall be rounded with a minimum six (6) inches radius.

   (gg) Sight Glass. An approved sight glass or other approved method shall be installed to observe backwash waste water from all sand filters.

   (hh) Signs. Where no lifeguard is required at Type A, B, and C pools, a warning sign with clearly legible letters at least 4 inches high shall be placed in plain view stating “WARNING - NO LIFEGUARD. It No diving sign(s) shall be displayed in conspicuous locations at all pools not
meeting the minimum requirements for diving. The sign shall read “NO DIVING” with minimum four (4) inches lettering.

(ii) Skimmers

1. When skimmers are required, there shall be one skimmer for the first 500 square feet of pool surface area and one skimmer for each additional 500 square feet or fraction thereof.

2. No skimmer shall be located closer than five feet to the nearest inlet.

3. When surface skimming devices are used, handholds shall be provided which consist of bull-nosed coping not over 2 1/2 inches thick or an equivalent device. The handholds shall be no more than nine inches above the normal operating water level.

4. The skimmer weir shall be automatically adjustable and shall operate freely with continuous action to variations in water level over a range of at least four inches.

5. An easily removable and cleanable basket or screen through which all overflow water passes shall be provided to trap large solids.

6. Type C and D pool inlets and outlets shall be provided and arranged to produce complete recirculation of pool water and maintenance of the required residual of sanitizing agent. These type pools shall be provided with a means of completely draining the contents of the pool to waste without passing through the filter.

7. An equalizer line shall be installed for all Type C and D pools.

(jj) Slope. The pool shall have a uniform slope from the shallow end to the slope transition point not exceeding one (1) foot vertical to twelve (12) feet horizontal. Where the depth is greater than five feet, the slope shall not exceed one (1) foot vertical to three (3) feet horizontal.

(kk) Steps And Ladders. Two (2) or more ladders shall be provided for Type A & B pools. At least one (1) ladder shall be provided for each seventy-five (75) feet of pool perimeter. Ladders shall have a minimum of three steps with non-slip treads. One (1) ladder may be deleted if steps are installed in the shallow end of the pool. Non-slip steps will be allowed on the shallow end and may extend inside the pool provided they are plainly marked. Where steps are used, a minimum of one (1) handrail shall be installed from the mid-point of the bottom step to the deck. Any steps over ten (10) feet wide shall have handrails on the edges and spaced not more than six (6) feet on centers. Steps shall not have a rise of more than 10 inches and a tread of 12 inches. Construction of steps and ladders shall conform to criteria as set forth in Figure 1.

(11) Turnover Rates. Pools shall be designed to filter and disinfect the water according to the following rates.

1. All Type A and B pools shall be designed to filter and disinfect the entire volume of water in no more than 6 hours.

2. All Type C and E pools shall be designed to filter and disinfect the entire volume of water in no more than 1 hour.

3. All Class D pools shall be designed to filter and disinfect the entire volume of water in no more than 30 minutes.
(Rule 1200-23-5-.03, continued)

(mm) Vacuum Equipment. An operational vacuum cleaning system shall be provided at all pools. Built-in vacuum outlets shall not be more than eight (8) inches below the normal operating water level.

(nn) Water Supply

1. All water used in drinking fountains, lavatories, showers, and hose bibbs shall be from a potable source.

2. All water used to fill the swimming pool shall be from a source approved by the Commissioner.

3. Hot and cold water under pressure shall be provided at shower heads and lavatories.

4. There shall be no cross connections within any portion of the pool facilities. Hose bibbs shall be equipped with an approved anti-siphon prevention device.


1200-23-3-.04 ESTABLISHMENT PERMITTING AND INSPECTION SYSTEM

(1) Application Procedures

(a) Any person planning to operate a public swimming pool must obtain a written application for a permit on a form provided by the Commissioner through the local county health department prior to operating a public swimming pool. A new or initial application is required for public swimming pools that have not previously been permitted or for instances when ownership changes.

(b) The Commissioner shall issue a public swimming pool permit

1. after an inspection of the proposed facility reveals that the facility is in compliance with requirements of these rules and

2. upon receiving a completed application with applicable fees.

(2) Inspection System

(a) The Commissioner shall inspect public swimming pools at least once every month while in operation or as often as required by law.

(b) Inspection results for public swimming pools shall be recorded on standard departmental forms which summarize the requirements of the law and rules and regulations.

(c) The scoring system shall include a weighted point value for each requirement in which critical items are assigned values of either four (4) or five (5) points, with less critical items having assigned values of either one (1) or two (2) points.

(d) The rating score of the facilities shall be the total of the weighted point values for all violations subtracted from one hundred (100).

(3) Violation Correction
(Rule 1200-23-5-.04, continued)

(a) in accordance with T.C.A. 68-14-318, correction of critical violations shall be within ten (10) calendar days. All other violated items shall be corrected as soon as possible, but in any event by the time of the next routine inspection.

(b) Upon declaration of an imminent health hazard by the Commissioner, the facility shall immediately cease operations until authorized to reopen.

(c) The inspection report shall state that failure to comply with any time limits for correction may result in cessation of operations. An opportunity for a hearing concerning the inspection and/or inspection report and/or on the ordered corrective action will be provided, if a written request is filed with the Commissioner within ten (10) calendar days following the inspection. If a request for a hearing is received, a hearing shall be held within a reasonable period of time after receipt of the request. Any such hearing shall be held pursuant to T.C.A. Title 4, Chapter 5, Part 3.

(4) Permit Revocation

(a) After providing opportunity for hearing, the Commissioner or his duly authorized representative may revoke a permit for serious or repeated violations of requirements of this part or for interference with the Commissioner or his duly authorized representative in the performance of his duty.

(b) Prior to revocation, the Commissioner or his duly authorized representative shall notify the permittee, in writing, of the specific reason(s) for which the permit is to be revoked, and that the permit shall be revoked at the end of ten (10) days following service of such notice, unless a written request for a hearing is filed with the Commissioner within such ten-day period. If no request for hearing is filed within the ten-day period, the revocation of the permit becomes final.

(c) Permit Revocation. When a permit to operate a public swimming pool is revoked by the Commissioner, a new permit shall be issued, upon meeting all requirements for a new permit and the submission of a new application with applicable fees.

(5) Whenever a facility is required under this section to cease operations, it shall not resume operations until it is shown on re-inspection that conditions responsible for the order to cease operations no longer exist. Opportunity for reinspection shall be offered within a reasonable time.


1200-23-3-.05 FEES

(1) Except as otherwise provided herein, a public swimming pool shall be assessed an initial fee and a renewal licensing fee of one hundred dollars ($100.00) each.

(2) A late penalty fee of ten dollars ($10.00) shall be accessed on all permit applications which are received by the Department after April 30th of each permitting year.

(3) A late penalty fee of ten dollars ($10.00) shall be assessed on all initial or new permit applications which are received by the Department greater than thirty (30) days from the date of the initial opening or operation of the public swimming pool.

(4) When an initial and or change of ownership application is made for a permit to operate a public swimming pool after October 1 of each year, the fee charged shall be one half (1/2) the annual rate.
1200-23-5-.06 LOSS OF PERMIT DOCUMENT

(1) Any establishment or operator that loses, misplaces, or destroys the permit or license shall immediately apply for a duplicate, as soon as the fact becomes apparent. The fee for the duplicate permit shall be three dollars ($3.00). This fee shall accompany the application for such duplicate.


1200-23-5-.07 GENERAL PROVISIONS

(1) Applicability. Rule 1200-23-5, Public Swimming Pools, applies to public swimming pools. All public swimming pools shall comply with all applicable provisions of Rule 1200-23-5, Public Swimming Pools, at all times.

(2) Posting of permit. Section 68-14-305 requires posting of permits “in a conspicuous manner.” This shall mean at a place so designated by the inspector at the time of inspection. No person except an authorized representative of the Commissioner shall modify, remove, cover up, or otherwise make the permit less conspicuous in any way.

(3) Severability. If any provision or application of any provision of these rules is held invalid, that invalidity shall not affect other provisions or applications of these rules.


1200-23-5-.08 TABLES

Table I

Main Pool (6 Hour Turnover)

<table>
<thead>
<tr>
<th>Capacity (Gallons)</th>
<th>Minimum Face Piping, Return Line Size in Inches*</th>
<th>Main Drain Size in Inches</th>
<th>Minimum Size of Pump in Horsepower**</th>
<th>High Rate Filter Minimum Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,501-18,000</td>
<td>2</td>
<td>2½</td>
<td>1</td>
<td>4.9 30”</td>
</tr>
<tr>
<td>18,001-23,400</td>
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<td>2½</td>
<td>⅓</td>
<td>4.9 30”</td>
</tr>
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<td>23,401-31,000</td>
<td>2½</td>
<td>2½</td>
<td>⅓</td>
<td>7.1 36”</td>
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<td>31,001-33,000</td>
<td>2½</td>
<td>2½</td>
<td>2½</td>
<td>7.1 36”</td>
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<td>33,001-43,000</td>
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<td>2½</td>
<td>3</td>
<td>7.9</td>
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<td>43,001-47,500</td>
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<td>3</td>
<td>3</td>
<td>9.0</td>
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<td>47,501-63,000</td>
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<td>5</td>
<td>12.0</td>
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<td>4</td>
<td>7½</td>
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<td>115,001-180,000</td>
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<td>6</td>
<td>10</td>
<td>33.0</td>
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<td>180,001-250,000</td>
<td>8</td>
<td>8</td>
<td>15</td>
<td>46.0</td>
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</tbody>
</table>
## Table II

**Spas and Whirlpools (30 Minute Turnover)**

<table>
<thead>
<tr>
<th>Capacity (Gallons)</th>
<th>Minimum Face Piping, Return Line Size in Inches*</th>
<th>Minimum Face Piping, Return Main Drain Size in Inches</th>
<th>Minimum Size of Pump in Horsepower**</th>
<th>High Rate Filter Minimum Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>350-1,000</td>
<td>$1^{1/2}$</td>
<td>$2^{1/2}$</td>
<td>$3/4$</td>
<td>$3.1$ Sq. Ft $24''$</td>
</tr>
<tr>
<td>1,001-1,500</td>
<td>$2$</td>
<td>$2^{1/2}$</td>
<td>$1$</td>
<td>$4.9$ Sq. Ft $30''$</td>
</tr>
<tr>
<td>1,501-2,000</td>
<td>$2$</td>
<td>$2^{1/2}$</td>
<td>$1^{1/2}$</td>
<td>$4.9$ Sq. Ft $30''$</td>
</tr>
<tr>
<td>2,001-2,700</td>
<td>$2^{1/2}$</td>
<td>$2^{1/2}$</td>
<td>$2$</td>
<td>$7.1$ Sq. Ft $2@30''$ or $1@36''$</td>
</tr>
<tr>
<td>2,701-3,500</td>
<td>$3$</td>
<td>$3$</td>
<td>$3$</td>
<td>$7.1$ Sq. Ft $1@4.8''$ or $2@30''$</td>
</tr>
<tr>
<td>3,501-4,500</td>
<td>$4$</td>
<td>$4$</td>
<td>$5$</td>
<td>$10.0$ Sq. Ft $2@30''$</td>
</tr>
</tbody>
</table>

* Piping other than PVC is approved for use.

** The pump curve provided by the manufacturer may indicate that a different size pump will achieve the required turnover rate.

### Note:
If two or more filters are used to achieve the desired area, they must be the same size.

## Table III

**Wading Pools (One Hour Turnover)**

<table>
<thead>
<tr>
<th>Capacity (Gallons)</th>
<th>Minimum Face Piping, Return Line Size in Inches*</th>
<th>Minimum Face Piping, Return Main Drain Size in Inches</th>
<th>Minimum Size of Pump in Horsepower**</th>
<th>High Rate Filter Minimum Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-2,000</td>
<td>$1^{1/2}$</td>
<td>$2^{1/2}$</td>
<td>$3/4$</td>
<td>$3.1$ Sq. Ft $24''$</td>
</tr>
<tr>
<td>2,001-3,000</td>
<td>$2$</td>
<td>$2^{1/2}$</td>
<td>$1$</td>
<td>$4.9$ Sq. Ft $30''$</td>
</tr>
<tr>
<td>3,001-4,000</td>
<td>$2$</td>
<td>$2^{1/2}$</td>
<td>$1^{1/2}$</td>
<td>$4.9$ Sq. Ft $30''$</td>
</tr>
<tr>
<td>4,001-5,000</td>
<td>$2^{1/2}$</td>
<td>$2^{1/2}$</td>
<td>$2$</td>
<td>$7.1$ Sq. Ft $2@30''$ or $1@36''$</td>
</tr>
<tr>
<td>5,001-8,000</td>
<td>$3$</td>
<td>$3$</td>
<td>$3$</td>
<td>$8.3$ Sq. Ft $1@42''$ or $2@30''$</td>
</tr>
<tr>
<td>8,001-12,500</td>
<td>$4$</td>
<td>$4$</td>
<td>$5$</td>
<td>$11.0$ Sq. Ft $2@36''$ or $3@30''$</td>
</tr>
</tbody>
</table>

* Piping other than PVC is approved for use.

** The pump curve provided by the manufacturer may indicate that a different size pump will achieve the required turnover rate.

### Note:
If two or more filters are used to achieve the desired area, they must be the same size.
NOTE: Placement of boards shall observe the following minimum dimensions. With multiple board installations minimum pool widths must be increased accordingly.

1 Meter or Deck Level Board to Pool Side   10'  (3.05m)
3 Meter Board to Pool Side                12'  (3.66m)
1 Meter or Deck Level Board to 3 Meter Board 10'  (3.05m)
1 Meter or Deck Level to another Deck Level Board  8'  (2.44m)
3 Meter to another 3 meter Board           10'  (3.05m)