CHAPTER 320. PUBLIC BATHING PLACE OPERATIONS

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[Source: Codified 12-31-91]
SUBCHAPTER 1. GENERAL PROVISIONS

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310:320-1-1. Purpose
The Public Bathing Place Operational Regulations are minimum design criteria and will be used as such by the State Department of Health. Nothing in these operational regulations should be construed as preventing the consulting engineer from recommending, or the reviewing authority from approving, more effective treatment where local conditions dictate such action.

310:320-1-2. Definitions
"Abrasion hazard" means a sharp or rough surface that would scrape the skin upon chance or by normal use modes.
"Adjustable inlet" means a fitting mounted in the pool wall and connected to the return piping from the recirculation system that is directionally adjustable or a fitting mounted in the pool floor and connected to the return piping from the recirculation system that has a means of flow adjustment.
"Air pump assist backwash" means the compressing of a volume of air in the filter effluent chamber (by means of an air compressor or by the water pressure from the recirculating pump) which, when released, rapidly decompresses and forces water in the filter chamber through the elements in reverse, dislodging the filter aid and accumulated dirt, carrying it to waste.
"Air induction system" means a system whereby a volume of air (only) is induced into hollow ducting built into a spa floor, bench, or other location. The air induction system is activated by a separate air power unit (blower).
"Attendant" means any person capable of providing rescue who is responsible to the management.
"Backwash" means the process of thoroughly cleansing the filter media and/or elements by reverse flow.
"Backwash cycle" means the time required to thoroughly backwash the filter media and/or elements and the contents of the filter vessel.
"Backwash rate" means the rate of application of water through a filter during the cleaning cycle normally expressed in U. S. gallons per minute per square foot of effective filter area.
"Bathing load" means the maximum number of persons allowed in the pool enclosure at one time.

"Booster pump system" means a system whereby one or more hydrojets are activated by the use of a pump which is completely independent of the filtration and heating system of a spa.

"Cartridge filter" means a filter that utilizes a porous cartridge as its filter medium.

"Collector tank" means a tank receiving the gravity flow from the perimeter overflow gutter and main drain(s) from which the recirculation pump takes suction. It may be referred to as a balance tank.

"Department" means the Oklahoma State Department of Health and authorized representatives.

"Diatomaceous earth filter" means a filter that utilizes a thin layer of filter aid as its filter medium that periodically must be replaced.

"Engineering nomenclature" means the technical terms used through these standards are understood to represent the currently accepted professional engineering definitions.

"Filter" means a device that separates solid particles from water by recirculating it through a porous substance (a filter medium or element).

"Filter agitation" means the mechanical or manual movement to dislodge the filter aid and dirt from the filter element.

"Filter aid" means a type of finely divided medium used to coat a septum type filter, usually diatomaceous earth, processed perlite, or similar material.

"Filter cycle" means the operating time between cleaning and/or backwash cycles.

"Filter element" means a device within a filter tank designed to entrap solids and conduct water to a manifold, collection header, pipe, or similar conduit. Filter elements usually consist of a septum and septum support.

"Filter freeboard" means the clear vertical distance between the top of the filter medium and the lowest outlet of the upper distribution system in a permanent media filter.

"Filter media, permanent" means a finely graded material (such as sand, anthracite, etc.) which removes filterable particles from the water.

"Filter septum" means that part of the filter element consisting of cloth, wire screen, or other porous material on which the filter medium or aid is deposited.

"Filtration flow" means the rate of flow, in volume per time (GPM, GPH), through the filter system installed per manufacturer's instructions with new clean media.
"Filtration rate" means the rate of filtration of water through a filter during the filter cycle expressed in U.S. gallons per minute per square foot of effective filter area.

"Hydrojets" means a fitting which blends air and water creating a high velocity, turbulent stream of air enriched water.

"Hydrotherapy, whirlpool, or spa pool" means a public pool used exclusively in conjunction with high velocity air and/or high velocity water recirculation systems, utilizing hot, cold, or ambient temperature water. These pools will be referred to as spas.

"Individual therapy units" means tanks which are designed for the therapeutic treatment of one individual at one time and are drained and cleaned after each individual use. Individual therapy units are not considered public bathing places.

"Ladders" means a series of vertically separated treads or rungs either connected by vertical rail members or independently fastened to an adjacent vertical spa/pool wall.

"Lower distribution system (underdrain)" means those devices used in the bottom of a permanent media filter to collect the water uniformly during the filtering and to distribute the backwash uniformly during the backwashing.

"Open to the general public" means not restricted to tenants or guests.

"Overflow system" means the term overflow system encompasses perimeter type overflows, surface skimmers, and surface water collection systems of various design and manufacture. The water line shall be established by the height of the overflow rim.

"Perimeter overflow gutter" means a trough or gutter around the inside perimeter of the pool walls with the overflow lip effecting a skimming action to clean the pool water surface.

"Permanent media filter" means a filter that utilizes a medium that can be regenerated and will not have to be replaced.

"Plung pool" means the receiving body of water located at the terminus of a recreation water slide.

"Pool deck" means the unobstructed area around the outside of the pool curb, diving boards, diving towers, and/or pool slides.

"Pool floor" means the interior bottom pool/spa surface and consists of that surface from a horizontal plan up to a maximum of a 45° slope.

"Pool turnover" means the circulation of a quantity of water equal to the pool volume through the filter and treatment facilities.

"Portable pool" means a shallow pool, with depth not exceeding 4.5 feet, intended only for swimming instruction, which can be quickly erected, used for an instruction period then dismantled and moved to another location. Conditions governing authorization
and operation are shown in the Public Bathing Place Regulations and Public Bathing Place Facility Standards.

"Precoat pot" - A hopper with a valved connection to the suction side of the recirculation pump of pressure diatomaeous earth type filter systems that is used for coating the filter with filter medium prior to filtering water through the system.

"Private pool" - A pool maintained by an individual for the use of his family and friends, with no other formal admission requirement.

"Public swimming pool or public pool" means a structure of concrete, masonry, or other approved materials, located either indoors or outdoors, used for bathing or swimming, or for instructional purposes in swimming, diving, or other aquatic activities by humans, and filled with a filtered and disinfected water supply, together with buildings, appurtenances, and equipment used in connection therewith. A public swimming pool or public pool shall mean a conventional pool, spa type pool, wading pool, special purpose pool, or water recreation attraction to which admission may be gained with or without payment of a fee and includes but is not limited to pools operated by or serving camps, churches, cities, clubs, counties, health spas, institutions, parks, state agencies, schools, subdivisions, or other cooperative living type projects such as apartments, boarding houses, condominiums, hotels, mobile home parks, motels, recreational vehicle parks, and mobile home parks.

"Recessed steps" means a riser/tread or series of risers/treads extending down from the deck with the bottom riser/tread terminating at the spa/pool wall, thus creating a "stairwell."

"Recessed treads" means a series of vertically spaced cavities in the spa/pool wall created treat areas for stepholes.

"Recirculation system" means the system traversed by the recirculated water from the pool until it is returned to the pool (from the through collector tank, recirculation pump, filter, chemical treatment heater, if provided, and returned to the pool).

"Skimmer system" means the water line shall fall in the midpoint of the operating range of the skimmers.

"Special purpose pool" means a public pool used exclusively for a particular purpose, including but not limited to springboard or platform diving training, scuba diving instruction, and aquatic programs for handicapped individuals and kindergarten children.

"Spray pool" means a recreative area intended for use by children, in which water is supplied by a system of sprays but is not allowed to accumulate.

"Steps" means a riser/tread or series of risers/treads extending down from the deck into the spa/pool area.

"Toxic" means the adverse physiological effect on man.
"Tread contact surface" means the foot contact surfaces of ladder, step, stair, or ramp.
"Turnover rate" means the period of time (usually in hours) required to circulate a volume of water equal to the pool capacity.
"Upper distribution system" means those devices designed to distribute the water entering a permanent media filter in a manner such as to prevent movement or migration of the filter medium. This system shall also properly collect water during filter backwashing unless other means are provided.
"Vacuum (or suction) filter" means a filter which operates under a reduced pressure from the suction of a pump.
"Wading pool" means a pool intended for recreative use by children and having a maximum depth not exceeding 18 inches.
"Water line" means the water line shall be defined in one of the following ways:
"Water recreation attraction" means a public bathing or swimming facility with design and operational features that provide patrons recreational activity which is different from that associated with a conventional swimming pool and purposefully involves total or partial immersion in the water. Water recreation attractions include but are not limited to water slides, water amusement lagoons, and wave pools.

310:320-1-3. Operational license
(a) No person shall operate a public bathing place without obtaining a license from the Commissioner of Health pursuant to 63 O.S.Supp. 2004, § 1-1013.1.
(b) A license to operate a public bathing place is not required for those public or semipublic baths where the main object is the external cleansing of the body, to bathing places maintained by an individual for the use of family and friends, or to bathing places owned or managed by a group or association of the owners of thirty or fewer homes, the use of which is limited to the homeowner group and their nonpaying guests.
(c) A public bathing place that must be licensed may be inspected by representatives of the Department at any reasonable time in order to determine if the public bathing place complies with applicable statutes and rules administered by the Department.

[Source: Added at 26 Ok Reg 1491, eff 6-11-2009]
310:320-3-1. Life saving equipment
(a) **Adequate life saving equipment.** Adequate life saving equipment shall be provided at all public bathing places where the water is sufficiently deep for swimming and diving, to minimize the danger of drowning and of injuries to bathers from falls or collisions.
(b) **Lifeguard chairs.** Each public bathing place open to the general public shall have at least one (1) elevated lifeguard chair. This shall be presumed to be adequate for two thousand (2000) square feet of pool surface area with an additional lifeguard chair being provided for each additional area of two thousand (2000) square feet or fraction thereof. Lifeguard chairs shall be located so that a lifeguard is not required to protect a segment in excess of one hundred-eighty (180) degrees. Where a pool is provided with more than one (1) lifeguard chair and the pool width is forty (40) feet or more, chairs shall be located on each side of the pool. See Standards Section 310:315-7-3 and Regulations Section 310:320-3-2.
(c) **Small pools.** Every swimming pool having a horizontal dimension of thirty (30) feet or less or a surface area of sixteen hundred (1600) square feet or less shall provide:
   (1) One (1) or more poles each at least sixteen (16) feet in length. These shall end in a shepherd's crook with an opening of at least eighteen (18) inches and shall be constructed of light sturdy material such as aluminum or bamboo.
(2) Two (2) or more ring-buoys fifteen (15) to eighteen (18) inches in diameter, constructed of light material, such as kapok, with at least one-quarter (1/4) inch rope attached to reach the length of the pool, not to exceed forty (40) feet.

(d) **Large pools.** For pools having a minimum horizontal dimension of more than thirty (30) feet or more than sixteen hundred (1600) square feet of surface area, the unit requirements listed under Standards Section 310:315-7-2 shall be doubled, and a backboard provided. The maximum length of pole required will be sixteen (16) feet. For large pools requiring more than two (2) lifeguard chairs, the requirements of Regulations Section 310:320-3-1 shall be provided for each chair.

(e) **Life line.** A life line shall be provided at or near the break in grade between the shallow and deep portions of a public bathing place, with its position marked with colored floats spread on five (5) foot centers. Life lines shall be three-quarters (3/4) of an inch minimum diameter. Terminals shall be securely anchored to a receptacle of corrosion-resistant material and of a type which will be recessed into the pool wall. See Standards Section 310:315-7-4.

(f) **Location of life saving equipment.** Life saving equipment shall be mounted in conspicuous places, distributed around the pool edge at lifeguard chairs, or elsewhere, ready of access, with its function plainly marked.

(g) **First aid kit.** A completely stocked first aid kit shall be conveniently available at each bathing place. Contents shall be suitable for the type facility as recommended by the American Red Cross.

(h) **Telephone.** A telephone to reach emergency assistance without the use of coinage shall be accessible to the pool during all hours of operation.

310:320-3-2. **Personnel**

(a) **Transfer of ownership.** Each holder of a permit to construct a public bathing facility shall notify the Department in writing upon sale, lease, or other transfer of responsibility for the premises and shall supply the Department with the name and address of the new operator and/or owner.

(b) **Operation and management.** The bathing place shall be maintained under the supervision and direction of a properly trained operator who shall be responsible for promoting good sanitation and safety, the proper maintenance of the bathing place, and all physical and mechanical equipment and records. Proper training can generally be obtained through attendance at short courses for swimming pool operators sponsored by the state,
county, and municipal health departments; state colleges and universities, and organizations such as the YMCA, YWCA, and Red Cross. It is recommended that pool operators attend these training courses.

(c) **Lifeguard.**

(1) One (1) or more lifeguards shall be on duty at the pool side of all bathing places open to the general public, and all pools with diving boards or platforms higher than one (1) meter at all times when the pool is open and in use. These individuals shall be in full charge and shall have authority to enforce all rules and regulations pertaining to sanitation and safety.

(2) Lifeguards of public bathing places in Oklahoma shall have satisfactorily completed an advanced course of instruction in life saving and water safety equivalent to that offered by the American Red Cross or YMCA. Lifeguards shall be carefully selected and shall be not less than sixteen (16) years of age at the time they are employed as a lifeguard for duty at any public bathing place in Oklahoma. Lifeguards shall have a current life saving certificate, be capable swimmers, shall be competent in life saving methods, and be able to perform artificial respiration, shall be in good physical condition, and shall be able to command respect. At least one (1) person holding a current certificate in cardiopulmonary resuscitation (CPR) and trained in multi-media or equivalent first aid shall be on duty at all times the pool is in use. A current advanced life saving certificate for each lifeguard employed shall be prominently displayed or posted at the checking stand or other convenient point so as to be easily read by the patrons. The CPR certificate(s) shall be similarly posted. Bathing places open to the general public with water depths of four (4) feet or less may substitute persons passing an American Red Cross Basic Water Safety Course or its equivalent, rather than the Advanced Life Saving Course. It is recommended that, in addition, such persons also receive instruction in the shallow water "carries and assists" portion of the Red Cross Advanced Life Saving Course or its equivalent.

(3) Lifeguards assigned to the pool side shall not be subject to duties that would distract their attention from proper observation and supervision of persons in the pool area, or that would prevent immediate assistance for persons in distress in the water.

(4) The number of lifeguards on duty shall be such as to provide reasonable general supervision of the activities of all persons in the pool area, with detailed supervision and close observation of those persons in the pool water. The number shall also be sufficient to enable periodic relief or rest
periods so that they will be alert while on duty. As a general approximation, it is recommended that the pool management provide at least one (1) lifeguard at the pool side for each seventy-five (75) persons in the swimming pool, with the determining factors being the type of pool, size of pool, ratio of surface area of deep water to the area of pool, temperature of the water, and quality of the water. Lifeguards shall wear distinguishing suits or emblems so that they may be easily identified by persons using the swimming facilities.

(5) In the case of pools not open to the general public, that limit the use of the pool to their tenants or guests, it is recommended that a lifeguard or attendant who is responsible to the pool management be in attendance when the bathing place is in use. No person shall be employed for this duty who has a known communicable disease. Pools not open to the general public which do not have attendants present during all hours of operation must post a sign at the entrance to the pool area stating "NO LIFEGUARD OR ATTENDANT ON DUTY."

(d) Duties and responsibilities of pool personnel. The Oklahoma Public Bathing Place Act provides that all owners, managers, operators, and other attendants in charge of any public bathing place shall be responsible for the safety and sanitation of public bathing places. In addition to compliance with the other parts of these standards, the pool personnel must be responsible for the following:

(1) Duties and responsibilities pertaining to bathers and general pool operation.
   (A) See that all rules and regulations affecting the users of the bathing place are properly enforced.
   (B) Report all drownings and accidents requiring hospitalization immediately to the local health authorities by telephone and in writing within seven (7) days. If there is no local health department, contact Environmental Services at the State Health Department, Oklahoma City, Oklahoma.
   (C) Report to the operator or management any condition of the bathing place or equipment which may be detrimental to its safe operation.
   (D) See that showers are used and are operating properly.
   (E) See that all persons known to be infected with a communicable disease are excluded from the pool.
   (F) See that all persons who are under the influence of an intoxicating liquor or drugs, are excluded from the shower rooms and the pool area.
   (G) See that all doors and gates to the bathing place are locked when the bathing place is not in use or when the facility is closed for health or safety reasons. Signs
(H) Conduct two (2) unannounced emergency drills each year are recommended, including at least one (1) with a water rescue, at all pools open to the general public.

(I) Submit required records of the pool operations to the county health department. In counties without a county health department, mail the operation record to the State Health Department.

(J) See that animals are not allowed inside the pool enclosure.

(K) See that safety equipment is not tampered with or played with by bathers or used for anything other than its intended use.

(2) Duties and responsibilities pertaining to the bathhouse and appurtenances.

(A) See that walk areas, overflow gutters, counters, lockers, equipment, furniture, interior partitions, and walls are in good repair and are clean. Where porous deck coverings are used, they shall be disinfected with a one hundred (100) ppm solution of chlorine at least once each day the facility is in use.

(B) See that floors of dressing rooms, shower stalls, and other interior rooms are scrubbed, using hot water with a suitable detergent, rinsed thoroughly, and disinfected daily. More frequent attention to floors is recommended during periods of heavy use. It is important that the floors be thoroughly clean prior to disinfection with chlorine compounds. The floors should be scrubbed with soap or a suitable detergent, using hot water, then disinfected with a 0.3 percent to 0.6 percent solution of available chlorine, or a suitable commercial cleaner and disinfecting agent may be used.

(C) See that toilet rooms and fixtures are kept clean, sanitary, and in good repair.

(D) See that liquid soap dispensers, paper towel dispensers, and toilet paper holders are kept adequately supplied.

(E) See that no food, drinks, debris, or foreign substances are thrown or carried into the pool. No glass containers of any type may be used in or near the pool. Beverages should be dispensed in paper cups to avoid the hazard of broken glass. Waste containers for disposal of used cups and food wrappers shall be located at convenient points within the walk areas.

(F) Exclude unauthorized persons from the bathing place area.
(G) Exclude spectators and non-bathers from the toilet rooms provided for the persons using public pool facilities.

(3) Duties and responsibilities pertaining to mechanical equipment.

(A) See that the pool is free from sediment and accumulations of lint and hair. See that the walls and bottom of the pool are free from dirt and discoloration and that the overflow gutters and skimmers are clean and flushing properly. See that the bottom and sides of the bathing place are brushed or suction cleaned as often as is necessary to keep the pool free of solids that may settle, algae, and slime.

(B) See that the level of the water is maintained at such a height as to ensure a constant slight overflow into the overflow gutter when no bathers are in the pool.

(C) Operate the pool equipment so as to maintain a clear and safe water and be responsible for maintaining the disinfection residuals and other chemical parameters as given under Regulations Sections 310:320-3-7 and 310:320-3-8.

(D) Keep on hand at all times at least a two (2) weeks supply of chemicals for disinfection and pH control of bathing water. (E) Keep on hand diatomite filter aid sufficient for two (2) weeks operation for filtration with diatomite filters, including diatomite skimming filters.

(F) When adjusting flow from inlets, give consideration to the fact that children, who are more susceptible to infectious diseases than older persons, will be more or less restricted to the shallow sections; the greatest pool loads with subsequent contamination are likely to come in this section of the pool. Inlets should be adjusted to provide approximately ten (10) PSI pressure on the effluent gauge when the filter is clean. Approximately seventy (70) percent of the water should return to the pool through the inlets in shallow portion of the pool.

(G) Provide for filtration plant operation.

(i) All bathing place operators shall know how to properly operate the filtration system and its appurtenances. These include hair catchers, filters, pumps, chemicals, and vacuum cleaners.

(ii) Where surface skimmers are provided as a means of control of flotage, bathing place personnel shall regularly insure that the flow of makeup water is adequate to assure proper skimming operation. Baskets or screens provided to trap large solids shall be cleaned regularly.

(iii) An adequate supply of septa and diatomite filter aid shall be available at all times where skimmer filters are provided. When two (2) or more skimmer filters are in
operation, they shall be inspected periodically to ensure balanced operation.
(iv) Pool volume and turnover rate shall be posted in the equipment area of all existing and all new pools.

(4) Duties and responsibilities pertaining to water chemistry.
(A) Be responsible for taking all tests as per Regulations Section 310:320-3-8.
(B) No pool shall be allowed to remain open for use if the free active chlorine, pH, or turbidity are not within the limits required by these regulations as per Regulations Section 310:320-3-7. It is the responsibility of the pool personnel to close the pool if any one (1) of these three (3) are not within the required parameter limits.
(C) Store all chemicals in a safe manner and in an area not accessible to unauthorized persons. No chemical shall be stored in a container that does not have a complete label on it for that product.
(D) See that the proper chemicals are on hand for the type disinfection feeder in use. Hand feeding of chlorine is permitted only for super-chlorination or cleaning the pool. Only chemicals recommended by the manufacturer of solution or flow-through feeders should be used.
(E) Chlorine and pH readings from an electrode type automatic controller may be substituted, with approval of the Department for three (3) of the four (4) required daily readings in Regulations Section 310:320-3-8.

310:320-3-3. Rules and precautions for patrons
(a) Rules for pools. Rules governing the use of pools, spas, and other public bathing places shall be displayed on signs large enough for easy reading which are posted at the entrance to the pool, dressing rooms, or other appropriate places. Sign shall provide, in similar language, that:
(1) A cleansing shower bath, using warm water and soap, must be taken before entering the pool.
(2) Persons with open wounds, bandages, or any symptom of communicable disease shall be prevented from entering the pool.
(3) Swimming alone is prohibited.
(4) At pools which do not have attendants or lifeguards on duty, children under twelve (12) years of age must be accompanied by an adult responsible for that individual child at the pool side.
(5) Running and rough play are prohibited in and around the pool.
(6) "Cut-offs" should be hemmed.
(7) Excess body lotions should be removed prior to entering the water.
(8) Bathing load limits shall be posted and enforced. See Standards Section 310:315-7-3.
(9) "NO LIFEGUARD OR ATTENDANT ON DUTY" where appropriate. See Regulations Section 310:320-3-2.

(b) **Precautions for spas.** Precautions for spa patrons shall be posted on a sign which provides, in similar language, that "Persons who are pregnant, taking medication, or have any history of cardiovascular disease should consult a physician before entering hot water. Drugs and alcohol are prohibited."

### 310:320-3-4. Safety provisions
(a) **First aid kit.** A completely stocked first aid kit meeting the requirements of the American Red Cross shall be on hand at each bathing place.
(b) **Emergency telephone numbers.** Every bathing place shall provide, immediately adjacent to its telephone, a selected list of current telephone numbers for available doctors, ambulance services, hospitals, and police or fire department rescue squads.
(c) **Life saving equipment.** All public bathing places shall provide and maintain in good condition adequate life saving equipment. See Regulations Section 310:320-3-1 for required equipment.
(d) **Bathing load.** The bathing load must be observed and the limit enforced by the owner and management at all pools. Bathing load shall not exceed design standards as per Standards Section 310:315-7-3. The bathing load limit shall be posted in plain sight at all pools.

### 310:320-3-5. Swimming suits and towels furnished by management
(a) **Suits and towels.** All swimming suits and towels used by and maintained for public use shall be thoroughly washed and sterilized after each use.
(b) **Laundering of suits and towels.** Swimming suits furnished by the management of the bathing place must be washed with hot water and soap or detergent, rinsed, and thoroughly dried and sterilized by heat each time they are used, or an equivalent approved process shall be used.
(c) **Clean suits and towels.** Clean swimming suits and towels shall not be permitted to come in contact with unwashed suits and towels or be stored on shelves or in baskets which have been used.
for storing dirty swimming suits and towels. The issuing of clean suits and towels at the same counters where dirty towels and suits are turned in shall be prevented.

310:315-3-6. **Wading and spray pool operation**
(a) **Operation.** All artificially constructed bathing places, including wading pools and spray pools using recirculation systems, shall be free of turbidity, algae, and slime or floating matter, and the water quality shall comply with the same standards as all other artificially constructed bathing places.
(b) **Supervision.** A supervisor shall be present at all times when a wading pool is in use. The supervisor's main duties consist of maintaining proper conduct and guarding against accidents. Children over twelve (12) years of age should be permitted to enter the enclosure but not the pool. Children with open sores or cuts, bruises, etc., or any contagious disease should not be admitted to the pool. The pool should be operated on definite hours on prescribed days to secure proper discipline and parents' cooperation. This supervisor replaces lifeguards and other safety requirements.
(c) **Drains.** Wading pool and spray pool drains shall have grates or covers complying with Standards Section 310:315-7-14. This stipulation shall apply to all existing wading pools and spray pools with recirculation systems, as well as those to be constructed.

310:315-3-7. **Quality of Bathing Water**
The pool water of all artificially constructed public bathing places shall undergo treatment necessary to comply with the following standards:
### 310:320-3-8. Table

<table>
<thead>
<tr>
<th>A. DISINFECTANT LEVELS</th>
<th>MINIMUM</th>
<th>IDEAL</th>
<th>MAXIMUM</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Free chlorine, mg/l (ppm)</td>
<td>1.0</td>
<td>1.0-1.5</td>
<td>5.0</td>
<td>Note: Chlorine should be maintained at this level continually. Super-chlorinate regularly. See B-1 below.</td>
</tr>
<tr>
<td>2. Combined chlorine, mg/l (ppm)</td>
<td>None</td>
<td>None</td>
<td>0.2</td>
<td>If combined chlorine* is too high you may have: Sharp chlorinous odors Eye burn Algal growth Bacteria growth (*combined chlorine is eliminated by super-chlorination)</td>
</tr>
<tr>
<td>3. Bromine, mg/l (ppm)</td>
<td>2.0</td>
<td>3.0</td>
<td>4.0</td>
<td>Note: Health department officials should be consulted before use.</td>
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<tr>
<th>B. CHEMICAL VALUES</th>
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</thead>
<tbody>
<tr>
<td>1. pH</td>
<td>7.2</td>
<td>7.5</td>
<td>7.8</td>
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<tr>
<td>TOO HIGH:</td>
<td>TOO LOW:</td>
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<tr>
<td>Low chlorine efficiency</td>
<td>Rapid dissipation of chlorine</td>
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<tr>
<td>Scale formation</td>
<td>Plaster/concrete etching</td>
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<td>Cloudy water</td>
<td>Eye discomfort</td>
<td></td>
<td></td>
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<tr>
<td>Increased chemical demand</td>
<td>Corrosion of metals</td>
<td></td>
<td></td>
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<tr>
<td>Eye discomfort</td>
<td></td>
<td></td>
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<tr>
<td>2. Total alkalinity as CaCO₃, mg/l (ppm)</td>
<td>80</td>
<td>100</td>
<td>200</td>
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<tr>
<td>TOO HIGH:</td>
<td>TOO LOW:</td>
<td></td>
<td></td>
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<tr>
<td>Cloudy water</td>
<td>pH bounce</td>
<td></td>
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<tr>
<td>Increased scaling potential</td>
<td>Corrosion tendency</td>
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<tr>
<td>pH maintained too high</td>
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### Minimum, Ideal, Maximum

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Minimum</th>
<th>Ideal</th>
<th>Maximum</th>
<th>Comments</th>
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<tbody>
<tr>
<td>3. Undissolved solids, mg/l (ppm)</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>If undissolved solids are: TOO HIGH:</td>
</tr>
<tr>
<td>4. Dissolved solids, mg/l (ppm)</td>
<td>300</td>
<td>...</td>
<td>1500</td>
<td>If dissolved solids are: TOO LOW:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total alkalinity may be too low</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aggressive water</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Chlorine may be less effective</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Scaling may occur</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fresh water should be added to reduce solids</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Salty taste</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dull water</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Chemical balance difficult to maintain</td>
</tr>
<tr>
<td>5. Hardness, as CaCO₃ mg/l</td>
<td>50</td>
<td>125</td>
<td>500</td>
<td>If hardness is: TOO LOW:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plaster or concrete etching may occur</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Corrosion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TOO HIGH:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Scaling may occur</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Water has bad &quot;feel&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Short filter runs</td>
</tr>
<tr>
<td>6. Copper, mg/l (ppm)</td>
<td>None</td>
<td>None</td>
<td>0.3</td>
<td>If copper content is: TOO HIGH:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Staining may occur</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Water may discolor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Chlorine dissipates rapidly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Filter may plug</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>May indicate pH too low, corrosion, etc.</td>
</tr>
<tr>
<td>7. Iron, mg/l (ppm)</td>
<td>None</td>
<td>None</td>
<td>0.2 0.3</td>
<td>If iron content is: TOO HIGH:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Staining may occur</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Water may discolor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Chlorine dissipates rapidly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Filter may plug</td>
</tr>
<tr>
<td>MINIMUM</td>
<td>IDEAL</td>
<td>MAXIMUM</td>
<td>COMMENTS</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>---------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>8. Manganese, mg/l (ppm)</td>
<td>None</td>
<td>None</td>
<td>0.05</td>
<td>If manganese content is:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TOO HIGH:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Staining may occur</td>
<td></td>
</tr>
</tbody>
</table>

C. BIOLOGICAL VALUES

1. Algae
   - None
   - None
   - None
   - If algae are observed:
     - Super-chlorine or shock treat pool
     - Supplement with brushing and vacuuming
     - Maintain adequate free chlorine residual
     - Use approved algicide according to label direction

2. Bacteria
   - None
   - None
   - Refer to local health code
   - If bacteria count exceeds health department requirements:
     - Super-chlorinate pool and follow proper maintenance procedures
     - Maintain proper free chlorine residual

D. STABILIZER

1. Cyanuric acid, mg/l (ppm)
   - 30
   - ...
   - 100
   - If stabilizer is:
     - TOO LOW: Chlorine residual rapidly destroyed by sunlight
     - TOO HIGH: May exceed health department regulation
   - NOTE: Stabilizer is not needed for indoor pools and should not be used in hot water facilities. Cyanuric acid may titrate as as alkalinity. See Appendix.

E. ALGACIDES

1. Quaternary algacides, mg/l (ppm)
   - ...
   - ...
   -...
   - NOTE: Not permitted in public pools.

2. Copper based algacides, (nonchelated), mg/l (ppm)
   - 0.1
   - 0.2
   - 0.3
   - NOTE: Ineffective against some algae. Health department officials should be consulted before using. May contribute to staining.
<table>
<thead>
<tr>
<th>MINIMUM</th>
<th>IDEAL</th>
<th>MAXIMUM</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>1.0</td>
<td>3.0</td>
<td>NOTE: See note above.</td>
</tr>
<tr>
<td>0.5</td>
<td>1.5</td>
<td>3.0</td>
<td>NOTE: Precipitates with cyanuric acid. Ineffective against some algae. Health department officials should be consulted before use.</td>
</tr>
</tbody>
</table>

**F. REMEDIAL PRACTICES**

1. Super-chlorination frequency Monthly When Weekly combined chlorine is 0.2 mg/l (ppm) or more

2. Required super-chlorination chlorine, mg/l (ppm) 5 10 ...

3. Required shock treatment chlorine, mg/l (ppm) 10 ... ...

4. Floccing frequency Not recommended Not recommended

5. Water replacement Hot water facilities ... ...

**G. TEMPERATURE**

1. Water temperature °F 90° ... 105° If temperature is:

   TOO LOW: Threat to health of certain persons with high blood pressure
   Excessive fuel requirement
   Increased evaporation
   Bather discomfort
   Increased scaling potential
   Increased use of chlorine

   TOO HIGH:
   Bather discomfort
<table>
<thead>
<tr>
<th>Minimum</th>
<th>Ideal</th>
<th>Maximum</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>75°</td>
<td>...</td>
<td>90°</td>
<td></td>
</tr>
</tbody>
</table>

**Swimming pools (Artificially heated water)**

2. Swimming pools

3. Indoor pools (air) Excluding hot water facilities

**Water Temperature**

<table>
<thead>
<tr>
<th>Water Temperature plus 8° max.</th>
<th>Water temperature minus 2° min.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**H. WATER CLARITY**

1. Water turbidity

Must be able to see main drain or six inch black disk on bottom of deepest part of pool from pool sidewalk.

If water turbidity is:

- TOO HIGH:
  - Chlorine level may be too low
  - Filtration system may be inoperative
  - Too turbid water may lead to drowning because of reduced visibility
310:320-3-9. Sampling and testing procedures

(a) Bathing place operators. As required by Regulations Section 310:320-3-2, all bathing place operators shall know how to perform the following:

1. Collect a sample for bacterial analysis.
2. Collect at proper places, a representative sample for determination of applicable chemical and operational parameters required by Regulations Section 310:320-3-9.
3. Be able to perform all applicable chemical analyses and operational determinations required by Regulations Section 310:330-3-9. The D.P.D. method should be used for free and combined chlorine determination. Orthotolidine (OTO) is not an acceptable method for determination of free chlorine.
4. Observe the proper procedure of turbidity determination. Close pool any time the main drain cannot be seen from the sidewalk. Determine cause and reduce turbidity to acceptable level before reopening pool.
5. Observe the water temperature in hot water pools and spas.
6. Balance the pool water in relation to pH, total alkalinity, and calcium hardness as per Regulations Section 310:320-3-7 (see Regulations Section 310:320-5-2 for Tables).

(b) Sampling and testing required.

1. Tests shall be made of the pool water as follows:
   - Free chlorine        Four (4) times per day
   - Bromine              Four (4) times per day
   - pH                   Four (4) times per day
   - Turbidity            Four (4) times per day
   - Combined chlorine    Daily
   - Turnover             Daily
   - Total alkalinity     Weekly
   - Calcium hardness     Weekly
   - Cyanuric acid        Weekly

2. Hot water facilities (above 90°F). In addition to the above tests, the following shall be determined:
   - Temperature          Four (4) times per day
   - Copper               Weekly
   - Iron                 Weekly
   - Total dissolved solids Weekly

3. Bacteriological samples. Hot water facilities and pools open to the general public may be required to submit a sample weekly to the local or the state health department.
310:320-3-10. Satisfactory compliance of records

(a) The Operation Record Form provided for these reports is designed to serve all types of bathing places but not all of the lines of items will be applicable to each bathing place. Therefore, the management of a facility will be responsible for maintaining records only on those line items of the report that apply to their bathing place. All bathing places must maintain information on turbidity, pH value, and chlorine residual; and for pools using stabilized chlorine compounds, cyanuric acid testing is also required.

(b) The law with reference to records shall be satisfied when records appropriate to the type of bathing place being operated are submitted to the county health department, or for those counties without a county health department, to the appropriate sanitarian.

(c) Records forms. Public bathing place operation record forms may be obtained from either the county or the state health department. The information requested or indicated thereon must be filled in completely for each day the public bathing place is open to the public. Forms tailored to suit the needs of the management may be substituted for Department forms provided that all information required by these standards is included and the forms are submitted to the Department for approval prior to use.

(d) Posting of inspection sheet. The inspection sheet filled out by an authorized representative of the Department, which indicates the sanitary condition of the public bathing place, must be posted and maintained in a conspicuous place easily visible to all who use the facilities.

(e) Laboratory reports. The laboratory reports covering any chemical or bacteriological examination of the water in a public bathing place must be kept on the premises and made accessible to authorized representatives of the Department.

(f) Report to the county health department. A copy of the cumulative daily operation record must be forwarded to the appropriate health department.

(g) Operation report form. The public bathing place operation record forms are designed to cover one (1) full week of operation. As a general rule, an original and one (1) copy will be required. The original is for the permanent files of the operator. The copy shall be forwarded to the appropriate health department as indicated above.

(h) Frequency of reporting to the county health department. The management of public bathing places operated on a year-round basis must, unless instructed otherwise, forward copies of the accumulated weekly reports to the appropriate health department once each month. The accumulated copies must be mailed
immediately following the closing of the pool on the first Saturday of each month.

(i) **Seasonally operated bathing places.** The management of public bathing places operated on a seasonal basis, for example, outdoor bathing places operated only during the warmer months, must, unless specifically instructed otherwise, forward copies of the operating records to the appropriate health department at the close of each week's activity. Weekly reports will enable the personnel of the county health departments to give more prompt assistance to those operators who obviously are having continuous operation difficulties than would be possible with monthly reports.

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**310:320-3-11. Winterizing and securing outdoor pools**

When the pool is closed, all gates shall be locked. All outdoor pools shall be secured in one of the following approved methods:

(a) **Draining.** Drained and kept drained until put back into service; or

(b) **Pools not drained or covered.** Turbidity shall be controlled so that the main drain is visible from the pool deck. Maintaining disinfectant concentrations will suppress algae growth, and maintaining water balance will protect concrete and metal surfaces.

(c) **Covering.** Provide a pool cover of a type that is securely anchored to the deck area with bolts or similar hardware and capable of supporting a minimum of one thousand (1000) pounds. Water must not be allowed to accumulate on the top. Swimming in the pool with a partial cover is prohibited. If water is left in the pool, it should be drained below the tile and skimmers (eighteen (18) to twenty-four (24) inches) and kept chlorinated. The air should be blown out of the skimmer and fill lines. Lights should be stored on the deck or in the bottom of the pool and with switches taped in the off position.

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**310:320-3-12. Special conditions**

Should special conditions exist or circumstances be such that in the opinion of the manager or operator, certain items listed as requirements would not be applicable, then alternate items shall be submitted in writing to the Department for appraisal as an acceptable substitute for the requirement, and upon approval may be used.
310:320-3-13. Subsequent examination, investigation, and inspection

(a) Subsequent to examination, investigation, and inspection by the State Commissioner of Health or his representative, any public bathing place found to be in non-compliance with the requirements of this chapter and therefore constituting a public nuisance, shall be reinspected within a reasonable time to determine if the public bathing place has been brought into compliance with the requirements of this chapter. Before each reinspection shall occur, the owner/operator shall pay a reinspection fee to the Department.

(b) Reinspection Fee. The reinspection fee shall be in the amount of two hundred fifty dollars and no cents ($250.00) payable to the Oklahoma State Department of Health.

[Source: Added at 22 Ok Reg 2396, eff 7-11-2005]
SUBCHAPTER 5. FORMS AND TABLES

Section
310:320-5-1. Portable pools
310:320-5-2. Water balance and water balance tables
310:320-5-3. Signs for storage of pool chemicals
310:320-5-4. Operation record form and instructions
310:320-5-5. Application for license
310:320-5-6. Application guidelines for permits to construct and licenses to operate public bathing places
310:320-5-7. Figures

310:320-5-1. Portable pools
(a) Conditions governing operation. The following conditions govern operation of portable pools:
(1) To be used for instructional purposes.
(2) For installation only at public buildings where adequate toilet and other sanitary facilities are conveniently available and at other agencies historically engaged in swimming instruction; i.e., Red Cross, YMCA, etc.
(3) The pool(s) to have continuous supervision by instructors or supervisors meeting requirements of these standards for life-guards.
(4) Instruction classes to be sized on the basis of one (1) pupil for each four hundred (400) gallons of pool volume.
(5) Use of the pool(s) to be limited to daylight hours unless the lighting requirements of these standards are met.
(6) The pool(s) to be covered and locked whenever unattended or out of use.
(7) The pool(s) installation at each location to be authorized by a permit issued by the Department for a scheduled period, preferably about two (2) weeks, extendable at the option of the county health department, upon receipt of a written request giving justification for the time extension.
(8) The operations of the pool(s) to be coordinated with the county health department for the purposes of inspections and supervision.
(9) Pool(s) to be located on paved surface with paved area and walkway from shower and toilet facilities to the pool.
(b) Application data required. Application data required for portable pools is as follows:
(1) Location(s) to be used.
List of sanitary facilities available and the distance from the pool at each location. The number of showers, toilets, and lavatories for boys and girls.

(3) Square feet of paved ground available for each installation.

(4) The name of the owner of the installation; i.e., City of Oklahoma City.

(5) The name and mailing address of the responsible individual and phone number; i.e., John Doe, Director of Recreation, City Park Department.

(6) The duration of the term of instruction for which classes are to be scheduled for each location.

(7) Each installation will require an application for permit with the above information.

**310:320-5-2. Water balance and water balance tables**

(a) Water balance is accomplished by adjusting the pH, total alkalinity, and calcium hardness in relation to each other. Tests are run on the pool water to determine the values for pH, total alkalinity, and calcium hardness. The accompanying table is used to determine scaling or corrosive potential of the water and to indicate corrective measures needed. Pools and spas that do not have balanced water are not only subject to considerable damage to the facility from scaling or corrosion but do not make effective use of free chlorine and indeed often have difficulty maintaining the required chlorine and pH levels. For more information, please contact your local health officials.

Recommended values are:

1. pH 7.2 to 7.8
2. Total alkalinity 80-120 ppm (pools) 100-150 ppm (spas)
3. Calcium hardness 100-150 ppm (pools) 150-300 ppm (spas)

(b) Directions to determine water balance point are as follows:

1. Test the pool or spa water to determine the level of pH, total alkalinity, and calcium hardness.
2. On the "Variable Temperature Water Balance Chart," locate the test values for total alkalinity and calcium hardness.
3. Connect a line between values for Total Alkalinity and Calcium Hardness. Mark the intersection with the pivot line. This becomes the pivot point. Draw a horizontal line through the pivot point and the pH scales. Read the pH from the appropriate pH-Temperature Scale at the intersection with the horizontal line. This is the pH at which the water is balanced and is neither corrosive nor scaling.
(4) If the pool water pH value shown on the chart is no more than 0.5 pH above or below the actual observed pH in #1, above then the water is in balance.

(A) If the actual pool water pH is 0.5 units higher than the pH value indicated in the chart, then the water is considered scaling and will deposit calcium in lines, filters, and in the pool.

(B) If the actual pool water pH is 0.5 units lower than the pH value indicated in the chart, then the water is corrosive and will corrode the metal pipes, pump impellers, ladders, and other fixtures and will etch the pool plaster making it "sandy."

(5) Calcium hardness is the hardest of the three to balance. Therefore, using the actual calcium hardness value as a pivot point, move the line between 7.2 and 7.8 to see at what level the total alkalinity can be adjusted to balance the water.

The pH should be adjusted first to between 7.2 and 7.8 (ideal is 7.6) and then the total alkalinity adjusted last. It is perfectly permissible to operate a pool at a slightly higher or lower pH than ideal (but within the 7.2 to 7.8 range) in order to balance the water.

(6) Cyanuric Acid vs. Total Alkalinity. Cyanuric Acid will titrate as total alkalinity using the current field tests. The following is a conversion chart that may be used to determine the corrected value to Total Alkalinity:

<table>
<thead>
<tr>
<th>pH</th>
<th>Cyanuric Acid Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0</td>
<td>0.04</td>
</tr>
<tr>
<td>6.5</td>
<td>0.10</td>
</tr>
<tr>
<td>7.0</td>
<td>0.21</td>
</tr>
<tr>
<td>7.5</td>
<td>0.30</td>
</tr>
<tr>
<td>8.0</td>
<td>0.36</td>
</tr>
<tr>
<td>8.5</td>
<td>0.38</td>
</tr>
<tr>
<td>9.0</td>
<td>0.38</td>
</tr>
</tbody>
</table>

For Example: With a pH of 7.5, Cyanuric Acid of 50 ppm, and Total Alkalinity of 150 ppm.

150 - (50 x .30) = Actual Total Alkalinity
150 - 15 = 135 ppm Actual Total Alkalinity
## VARIABLE TEMPERATURE WATER BALANCE CHART

<table>
<thead>
<tr>
<th>Total Solidity (ppm)</th>
<th>pH 76°F</th>
<th>pH 84°F</th>
<th>pH 94°F</th>
<th>pH 105°F</th>
<th>Calcium Hardness (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>50</td>
<td>8.5</td>
<td>8.3</td>
<td></td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>60</td>
<td>8.4</td>
<td>8.2</td>
<td>8.1</td>
<td>8.1</td>
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</tr>
<tr>
<td>70</td>
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<td>7.7</td>
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<tr>
<td>100</td>
<td>8.0</td>
<td>7.8</td>
<td>7.7</td>
<td>7.6</td>
<td>100</td>
</tr>
<tr>
<td>125</td>
<td>7.9</td>
<td>7.7</td>
<td>7.6</td>
<td>7.5</td>
<td>125</td>
</tr>
<tr>
<td>150</td>
<td>7.8</td>
<td>7.6</td>
<td>7.5</td>
<td>7.4</td>
<td>150</td>
</tr>
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<td>7.7</td>
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<td>7.4</td>
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</tr>
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<td>7.6</td>
<td>7.4</td>
<td>7.3</td>
<td>7.2</td>
<td>200</td>
</tr>
<tr>
<td>250</td>
<td>7.5</td>
<td>7.3</td>
<td>7.2</td>
<td>7.1</td>
<td>250</td>
</tr>
<tr>
<td>300</td>
<td>7.4</td>
<td>7.2</td>
<td>7.1</td>
<td>7.0</td>
<td>300</td>
</tr>
<tr>
<td>350</td>
<td>7.3</td>
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<td>350</td>
</tr>
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<td>6.8</td>
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<td>7.1</td>
<td>6.9</td>
<td>6.8</td>
<td>6.7</td>
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</tr>
<tr>
<td>500</td>
<td>7.0</td>
<td>6.8</td>
<td>6.7</td>
<td>6.6</td>
<td>500</td>
</tr>
<tr>
<td>550</td>
<td>6.9</td>
<td>6.7</td>
<td>6.6</td>
<td>6.5</td>
<td>550</td>
</tr>
<tr>
<td>600</td>
<td>6.8</td>
<td>6.6</td>
<td>6.5</td>
<td>6.4</td>
<td>600</td>
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<td>650</td>
<td>6.7</td>
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<td>6.4</td>
<td>6.3</td>
<td>650</td>
</tr>
<tr>
<td>700</td>
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<td>6.4</td>
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<td>6.2</td>
<td>700</td>
</tr>
<tr>
<td>750</td>
<td>6.5</td>
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<td>800</td>
<td>6.4</td>
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</tr>
<tr>
<td>900</td>
<td>6.2</td>
<td>6.2</td>
<td>6.1</td>
<td>5.9</td>
<td>900</td>
</tr>
</tbody>
</table>

Average Water Temperature

76°F  84°F  94°F  105°F
310:320-5-3. Signs for storage of pool chemicals

Suggested signs to be used to indicate presence of pool chemicals

1. U.S. Department of Transportation sign – 4” square

   ![Oxidizer Sign](image)

   yellow background

   OXIDIZER


   ![NFPA Sign](image)

   Number in Blue Code for Health Hazard

   Number in Red Code for Flammability

   Number in Yellow Code for Explosive Potential

   Letter in Black Code means Explosive With Water

   4 is the highest number on this scale (0 - 4 scale)
310:320-5-4. Operation record form and instructions

<table>
<thead>
<tr>
<th>MON</th>
<th>TUES</th>
<th>WED</th>
<th>THU</th>
<th>FRI</th>
<th>SAT</th>
<th>SUN</th>
</tr>
</thead>
</table>

1. POOL NAME __________________________ ADDRESS __________________________ CITY ________________

2. SUPERCHLORINATED ______ TYPE CHLORINE USED ______ POUNDS ______ CONC. ______

3. POOL: CAPACITY (gal.) ______ SURFACE AREA ______ MAXIMUM BATHING LOAD ______

4. Safety Equip Checked ______
   - Pool Cleared/Vacuumed (time)

5. Floors/Decks disinfected (time)

6. Number of Patrons ______

7. Number of Accidents (see back)

8. Number of Guards/Attendants ______

9. Pool Hours (open/closed) ______
   - / /

10. Filtration:
   - Type ______
   - 11. Backwashed (time)
   - 12. Gauge Readings I/O ______
   - 14. Strainer Gauge ______

11. Flowmeter Readings (gpm) ______
   - / /

12. Combined chlorine (ppm) ______

13. Chemicals added to pool:
   - 17. Chlorine (lbs.) ______
   - 18. Soda Ash (lbs.) ______
   - 19. Muriatic Acid (gal.) ______
   - 20. Stabilizer (lbs.) ______
   - 21. Sodium Hypochlorite (lbs.) ______
   - 22. DE Powder (lbs.) ______
   - 23. Other ______

14. 
   - MON | TUES | WED | THU | FRI | SAT | SUN |
   - Tm | Cl | pH | Tm | Cl | pH | Tm | Cl | pH | Tm | Cl | pH | Tm | Cl | pH | Tm | Cl | pH |

16. pH Adjustment:
   - 24. [1]
   - 25. [2]
   - 26. [3]
   - 27. [4]

18. Temperature:
   - 28. [1]
   - 29. [2]
   - 30. [3]
   - 31. [4]

19. Test Results:
   - 32. Total Alkalinity (ppm) Date | Cyanuric Stabilizer (ppm) Date |
   - 33. Calcium hardness (ppm) Date | Total Dissolved Solids (ppm) Date |
   - 34. Water Balance OH Date | Iron (ppm) Date |
   - 35. Copper (ppm) Date |

20. Remarks:

21. Operator Name: ______

22. Operator No.: ______

23. Pool Manager: ______

24. Operator No.: ______

ODH Form No. 318 (Rev. June 1981)
INSTRUCTIONS

LINE 1. Enter pool name, street address, and city. If more than one pool is located at an address, such as an apartment complex, identify each pool.

LINE 2. Enter the date the pool was super-chlorinated, type chlorine used, pounds added, and final concentration in ppm.

LINE 3. Enter the pool capacity in gallons, the surface area in square feet and the maximum approved bathing load based on pool area or bathhouse facilities which ever is the limiting factor.

LINE 4. Enter time that safety equipment is checked. This should be done each day before opening the pool.

LINE 5. Enter time that the pool is cleaned or vacuumed.

LINE 6. Enter time the bathhouse floor and deck are cleaned and disinfected.

LINE 7. Enter the operator's estimate of the maximum number of persons admitted to the premises each day.

LINE 8. Indicate the number of accidents, if any, that occurred during the day. Any accident requiring hospitalization must be reported immediately by telephone and followed by a written report within seven (7) days.

LINE 9. Indicate the total number of qualified lifeguards/attendants on duty during the time of maximum load.

LINE 10. Indicate the time the pool is opened and closed for public use. Example: 10 a.m./8 p.m.

LINE 11. Enter the time the filter is backwashed.

LINE 12. Enter the inlet and outlet gauge reading psi just prior to backwashing. Example: 18/9

LINE 13. Enter total number of gallons of make-up water added each day.

LINE 14. Enter the reading of the gauge located between hair and lint strainer and pump intake before and after cleaning or replacing the basket. Example: 15/2

LINE 15. Enter the flow meter reading and time read daily. On days that the filter is backwashed, enter the reading before and after backwashing. Example: 200/10 a.m. or 200/225

LINE 16. Enter the combined chlorine reading. This reading should be taken at the close of each day and if the reading is 0.2 ppm or greater, the pool must be super-chlorinated before reopening to the public.

LINE 17. Enter the number of pounds or gallons (or other thru 23. appropriate units) of the chemical fed to your pool, if any.
LINE 24 A series consists of at least four (4) samples taken from different areas of the pool. Enter the time taken in the Tm block, the average free chlorine from the samples in the Cl block and the average pH in the pH block.

LINE 28 Enter in the Tm block the time the turbidity and temperature observations are made. Temperature measurement is required only on hot water facilities. (Those operated at temperatures above 90°F). Turbidity should be reported as follows: (S) for no turbidity or a clean pool. (M) for a pool with cloudy water but still able to see the bottom in the deepest water. (U) whenever the main drain cannot be seen. The pool is to be closed when this occurs.

LINE 32 Enter the value for indicated parameters and the date the analyses are made. Note all parameters are not required on all pools.

LINE 36 Remarks. Enter any comments regarding accidents at the pool or its operation that may be of benefit to you in the future or to serve as a record in the event of litigation.

LINE 38 Enter the name of the person responsible for the operation of the pool.

LINE 39 The pool manager may be the owner of a private facility, apartment complex manager, or a person employed by a municipality to manage their pool(s).

The form must be signed by the pool operator or manager.

Keep original copy in your files. Mail one (1) copy to the County Health Department. In counties without a health department, mail one (1) copy to Water Facilities Engineering Service, Oklahoma State Department of Health, P. O. Box 53551, Oklahoma City, Oklahoma 73152.
310:320-5-5. Application for license
(a) The applicant shall file an application for a license to operate a public bathing place on the forms provided by the Department, as set forth in this Chapter as Appendix A and Appendix B, with the filing fee payable to the Oklahoma State Department of Health, prior to operating a public bathing place. The filing fee is established by rule in Chapter 310:250 of the Oklahoma Administrative Code, Fee Schedule For Consumer Health Services.
(b) The application for a license to operate a public bathing place must include a copy of the permit to construct the public bathing place for which the applicant seeks a license, or reference the construction permit in the application, in order to be eligible for a license to operate a public bathing place.

310:320-5-6. Application guidelines for permits to construct and licenses to operate public bathing places
(a) An applicant shall be an owner/operator of the public bathing place, as defined in 63 O.S. Section 1-1013 et. Seq. complying with the requirements of this chapter, agree to permit access to the public bathing places, provide required information, and pay the applicable license fee and submit application on a form provided by the Department.
(b) The application shall include:
   (1) The name, mailing address, telephone number, approximate number of employees, and signature of the person applying for the license and the name, mailing address and location of the public bathing places;
   (2) Information about the legal entity for the public bathing places; and
   (3) Information about the type of public bathing places.
(c) The license holder shall comply with all provisions of OAC 310:320-3-2.
(d) Fee. The fee (see Fee Schedule, Regulations Section 310:320-5-5) shall be made payable to the Oklahoma State Department of Health.
(e) Facility definition.
   (1) A public bathing facility, for permitting purposes, will be:
      (A) A single swimming pool, spa, water slide, or other bathing unit, or
      (B) A complex of two (2) or more such units with deck areas in common, "deck" being used in the same context as in the Public Bathing Place Standards, or,
      (C) A complex of such units with water in common such as indoor and outdoor pools connected by a channel.
(2) For the purpose of allocating permit fees, a single fee and permit will apply in each of the above cases 1 through 3. A new permit and fee will apply for a new bathing unit added later to an existing facility, and for a major modification of an existing unit.

(f) **Applicant identification.**

(1) Title 63 Oklahoma Statutes, (Public Health Code), Section 1-1017 states, in part "...plans and specifications shall be accompanied by an application for permit, and both the plans and specifications and the application shall bear the signature of the person for whom the work is to be done." (Emphasis added.)

(2) The Department of Health interprets this to mean the owner or an authorized agent of the owner. The application may take these forms:

(A) Applicant is the owner and signs as such.

(B) Applicant is an authorizing officer of the organization which is the owner; the full name of the organization and the signer's title must be supplied.

(C) Application includes a letter from the owner (or from an officer as in #2, or from an authorized agent of the owner) authorizing the applicant to act on his behalf for the purpose of obtaining the permit.

(D) Application is signed "XXX, agent for YYY, owner." If there is any question whether "expediency" may have resulted in misrepresentation, the Department may require an authorizing letter as in #3 above.

(3) If the application does not show whether the owner and/or agent is an individual, a partnership, or a corporation, processing of the permit will be delayed until this information is supplied.

(4) The application form also requires that, if Item C-4 on the application is checked "No," information is to be provided on who will be responsible for the facility following completion of construction. In the case of joint ownership, such as a condominium or housing development, the applicant may state on the application that, for example, a homeowners association will own and operate the bathing facility. In such cases, a provision in the permit will assign this future responsibility accordingly, if no Affidavit of Responsibility is supplied with the application. In other cases (C-4 check "No"), there must be submitted with the application, a notarized Affidavit of Responsibility signed appropriately. The purpose of this is to remove any doubt that the responsible party is aware of its responsibility.
(g) **Non-applicable items.** Items A, C-6, C-7, and all of page 3, may be ignored in the case of public bathing place permits, unless the facility is to be municipally owned.
Note: Compliance with the Public Bathing Place Facility Standards and the Public Bathing Place Regulations Criteria is required respecting all features not included here.

**Public Bathing Place**
**Summary Engineering Report**

Complete separately for each unit (pool, spa, other).

**A. General**

1. Physical location of facility (not P.O. Box or Rural Route):______________________________

2. Type (pool, spa, wading pool, water slide, raft ride, etc):______________________________

3. Water area, ft² ______________________________

4. Perimeter, ft ______________________________

5. Volume, gal ______________________________

6. Shallow water area ("above" lifeline), ft² ____________

7. Deep water area ("below" lifeline), ft² Capacity, persons ____________

8. Diving boards, number and height ______________________

9. Bottom slopes: shallow area _____ transition _______

**B. Water Supply and Wastewater**

1. Water source ________. Two diameters or six (6) inches air gap at fill spout ____ (Y/N)

2. Backwash discharges to ____________________ with indirect connection ____ (Y/N)

3. Walkways drain to _____ at slope = ________ (1/4 inch per foot minimum)

**C. Recirculation and Filter System**

1. Minimum turnover rate required by Standards, gpm _______

2. Number of skimmers _____ @ 30 gpm = __________ gpm

3. Design flow rate, gpm ___________
4. Main drain flow (at least 30 percent of total flow) gpm

5. Filter type (sand, DE, or cartridge) ______________________

6. Minimum filter area required, $ft^2$ ____________________

7. Design filter area, $ft^2$ _____________________________

8. Maximum filter flux density, gpm/$ft^2$ __________________

9. Head loss in suction piping is no greater than 6 ft/1000 ft. _____ (Y/N)

10. Head loss in discharge (pressure) piping is no greater than 12 ft/100 ft. _____ (Y/N)

11. Maximum TDH, dirty filter, ft ______

12. Pump capacity at maximum TDH, gpm ______

13. Number of inlets: _____ a depth _____ (inches)

14. Antivortex cover or complying suction openings specified _____ (Y/N)

15. Flow meter specified _____ (Y/N)

16. Filter influent and effluent pressure gauges specified, and compound or vacuum gauge specified between pump and hair and lint strainer _____ (Y/N)

17. Extra hair/lint basket specified _____ (Y/N)

18. Piping schematic included in plans _____ (Y/N)

19. Each skimmer and main drain valved separately _____ (Y/N)

D. Miscellaneous

1. Two-inch diameter equalizer line specified at skimmers _____ (Y/N)

2. Skimmers listed as approved by NSF _____ (Y/N)

3. Filters listed as approved by NSF _____ (Y/N)

4. Chlorinator or brominator listed as approved by NSF _____ (Y/N)

5. Two thermometers specified, if heater used _____ (Y/N)
6. All parts of facility served by 50 foot (maximum) hoses, from hose bibs with backflow preventers ______ (Y/N)

7. Valves and piping tagged or color coded ______ (Y/N)

8. Depth markers specified, both pool wall and deck ______ (Y/N)

9. Life line specified at change in bottom slope ____ (Y/N)

10. If spa, "jet" or "therapy" system is independent from filter/recirculation system, other than at spa plenum ______ (Y/N)

11. Local ordinances permit proposed backwash discharge ______ (Y/N)

12. Operating instructions specified ______ (Y/N)

13. Enclosure complies with Standards Section 310:315-7-2 ______ (Y/N)

14. Entry to pool is through self-closing, self-latching gates or doors, only _____ (Y/N)

15. Lighting and electrical wiring are specified in accordance with Standards Sections 310:315-7-18 and 310:315-7-19 ______ (Y/N)

16. Safety equipment and provisions are specified in accordance with Regulations Sections 310:320-3-1 and 310:320-3-4 ______ (Y/N)

17. Provisions for handicapped are specified (If pool is Open to the General Public) _____ (Y/N)

18. Bathhouse complies with Standards Sections 310:315-7-7 and 310:315-7-8 (if pool is Open to the General Public) _____ (Y/N)

Any items answered "No" require explanation. Add pages as necessary.

_________________________________     _________________________
Engineer's Signature                       Date
January 29, 1985

Public Bathing Places

Procedure and Design Check List

This procedure and design check list is limited to significant features of the Public Bathing Place Facility Standards, the Public Bathing Place Regulations, and some features which generate questions frequently. Purposes are to help simplify and organize design work, review work, and inspection work. Not every regulatory feature is covered--some are left to the Standards and Regulations, and the Standards and Regulations leave some to specifications of others such as the NSF, ANSI, ASSE, NEC, FINA, and others. Further, "good practice" is a universal criterion. The design engineer is responsible for alerting the applicant and contractors to these requirements sufficiently through the plans he prepares and through direct communication. It is expected that installation will conform to approved plans in respect to all significant details, including any change orders approved by the design engineer and by the OSDH. Further, compliance with the Standards and Regulations is required respecting all features not included in the approved plans.
Refer to the Public Bathing Place Facility Standards and the Public Bathing Place Regulations

**Procedures**

______ 1. Application completed in accordance with "Guidelines for applicants for Public Bathing Place Permits."

______ 2. Five (5) sets of plans submitted, each signed by applicant and sealed by a professional engineer licensed in Oklahoma.

______ 3. Fee submitted.

**Design**

______ 1. Engineering report (may be a summary on drawings) presenting significant design features, and added narrative solutions to unusual problems when needed for clarity.

______ 2. Water supply: source; backflow prevention (including all hose bibs); drinking fountains; fill spout (2 diameters or 6 inch air gap).

______ 3. Wastewater: approved sewer (permit exists) of sufficient capacity; NPDES permit if applicable; diatomaceous earth separation; sanitary and backwash wastes plan; backflow prevention (air gap); local ordinances provisions on backwash discharge.

______ 4. Pool material and finish: impervious; white or pastel color (no variegated finish).

______ 5. Enclosure: excludes unattended small children; permits visual observation; maximum gap four (4) inches; four (4) feet height (six (6) feet if open to general public); construction does not form ladder; all entry through self-closing, self-latching gates only; no safety hazards at grade separations.

______ 6. Equipment and chemical storage areas; sufficient access for operation and maintenance (eighteen (18) inch clearances); access by public limited; venting; hose bib with backflow preventer; chemical storage signs. See Standards Sections 310:315-7-2 and 310:315-7-13.
7. Bathing load computed per Standards Section 310:315-7-3.

8. Pool features: handicapped provisions if open to general public; three (3) feet minimum depth (three and one-half (3-1/2) feet recommended), competition pools; bottom slopes; lifeline at break; side walls; depths; ledges inside line eleven (11) degrees from plumb; diving board height, projection over pool, headroom; depth markings (deck and pool wall); outlets (144 in² or antivortex covers); adjustable inlets, required minimum plus added inlets at stairs, recessions, flow-through channels; gutters comply with Standards Section 310:315-7-14; skimmers thirty (30) gpm each, valved separately, NSF-listed.

9. Ladders, stairs, seats, fountains: two (2) ladders or one (1) ladder and one (1) set of stairs; stairs recessed or "go clear across"; colored stripes; uniform height; barriers around recessed seats, and added inlets; fountain supply filtered and chlorinated if discharging to pool; no structures in fountain to invite diving.

10. Decks: four (4) foot minimum width; impervious; non-slip; slope and drainage; no wood decks indoors, and sealed, drained, and unshaded if outdoors; access by fifty (50) foot (maximum) hose from hose bib with backflow preventer; no carpeting; no epoxyed gravel unless interstices are grouted.

11. Bathhouse: see Standards for (extensive) details; must be sanitizable; required only at (1) pools open to the general public, (2) where access to pool is problematic as at a housing development, and (3) other special installations; no fire traps; fire extinguisher (not CCL4).


13. Wading pools: four (4) hour turnover; flow measurement and control; eighteen (18) inches maximum depth; one (1) skimmer per four hundred (400) ft² pool area; emergency drainage with quick-opening valve; barrier if contiguous with swimming pool.
14. Spas: impervious (no wood); no depth markers required; four (4) foot minimum deck width about fifty (50) percent of perimeter if less than 120 ft² spa area; decks drained; handrail complying with Standards Section 310:315-7-11; thirty (30) gpm per skimmer (NSF-listed) plus adequate main drain flow to prevent settling in lines; no connection, other than at spa plenum, between filter and therapy circulation systems; antivortex or equivalent suction openings; disinfection device NSF-listed (bromine recommended); two (2) filter return inlets, minimum; temperature control at 105°F maximum; inlet and return temperature gauges. (See also #16 below.)

15. Water recreation attractions; preconsultation with OSDH required; see Standards Section 310:315-7-12.

16. Recirculation system: system TDH calculated for dirty filter; pump sized at maximum TDH; hair and int strainer with extra basket and compound pressure gauge where required: vacuum cleaning provisions; inlet and return temperatures measured if heater provided; piping sized per Standards Section 310:315-7-14; piping color coded and valves tagged; flow meter with minimum and maximum flows marked; piping schematic provided. See Standards Section 310:315-7-14 for further details.

17. Filters: influent and effluent pressure gauges; sign glass; filter tanks and piping drainable; filter medium composition and particle size specified; filter NSF-listed; head loss when dirty at maximum allowable flux (gpm/ft²) computed correctly; operating instructions provided, including maximum and minimum flow rates. See Standards Section 310:315-7-15 for further details.

18. Disinfection and pH control: chlorinator/brominator NSF-listed and meets delivery requirements of Standards Section 310:315-7-16; chlorine gas installation per Standards Section 310:315-7-16; gas mark; pH control feeder if pool open to general public or larger than fifty thousand (50,000) gallons.

20. Lighting and electrical requirements: artificial lighting required, ten (10) foot-candles, deck area; underwater lights (if used) recommended @ eight (8) foot-candles and with low water cutoff protection; ten (10) foot-candles, interior rooms; all wiring meets NEC Code; ground fault interrupter circuit breakers for outlets; all piping and metal fencing grounded per NEC Code.

21. Life saving provisions and equipment: lifeguard or attendant needs weighed carefully where slides or swings are used; safety/pool rules signs specified, including "No Lifeguard or Attendant on Duty" where required; see Regulations Section 310:320-3-1 for details.

22. First aid: kit specified; telephone (non-coin operated) accessible; emergency phone numbers posted.

[Source: Amended at 22 Ok Reg 2396, eff 7-11-2005]
310:320-5-7. Figures

Diving Area - Schedule Of Depths And Their Locations

<table>
<thead>
<tr>
<th>STANDS AND BOARDS</th>
<th>Depth - Minimum-Maximum</th>
<th>LENGTH OF SECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D-1</td>
<td>D-2</td>
</tr>
<tr>
<td>3-Meter Board</td>
<td>Min.</td>
<td>5'0&quot;</td>
</tr>
<tr>
<td></td>
<td>Max.</td>
<td>5'6&quot;</td>
</tr>
<tr>
<td>1-Meter Board</td>
<td>Min.</td>
<td>5'0&quot;</td>
</tr>
<tr>
<td></td>
<td>Max.</td>
<td>5'6&quot;</td>
</tr>
<tr>
<td>Deck Level Board</td>
<td>Min.</td>
<td>5'0&quot;</td>
</tr>
<tr>
<td></td>
<td>Max.</td>
<td>5'6&quot;</td>
</tr>
</tbody>
</table>

Note: Distance between boards will not be less than 8'0" center to center.
(a) B & C may vary to attain 15'0" min.
(b) B & C may vary to attain 12'0" min.
(c) As D-2 varies between min. & max. "D" may vary, but slope of "D" may not exceed 1'0" vertical to 4'0" horizontal.
(d) See also Fig. 11 and 11-A.

Figure I
Minimum Dimensions For Small Pools
Having A Deck Level Diving Board

Figure II
TYPICAL FREE FORM POOL DESIGN
Indicating Minimum Dimensions From Tip Of Diving Board To Pool Wall

POOL WALL SHALL REMAIN OUTSIDE OF TRIANGLE

Figure II-A
CALCIUM HYPOCHLORINATOR

FIGURE III