

3701-31-01 **Definitions.**

- (A) "Automatic chemical controller" means equipment that continuously and automatically monitors the pH and biocidal activity (disinfectant residual or oxidation reduction potential (ORP) of the chlorine or bromine in the spa (or applicable public swimming pools) through the use of an ORP sensor to regulate the dosing rate of added disinfectant between the desired set point and the actual measured value.
- (B) "Board of health" means the board of health of a city or general health district or the authority having the duties of a board of health in any city as authorized by section 3709.05 of the Revised Code.
- (C) "Circulation system" means an arrangement of mechanical equipment and/or components designed to ensure even distribution of heat, chemicals and filtration of recycled water throughout the public swimming pool. Circulation system includes filters, pumps, disinfection or other chemical reagent feed devices, piping, inlets, outlets, gutters or skimmers, and other components.
- (D) "Deep" means a water depth of more than five feet.
- (E) "Director" means the director of the department of health or his authorized representative.
- (F) "Health district" means any city or general health district created pursuant to section 3709.01 of the Revised Code.
- (G) "Imminent health hazard" means any condition that would present an undue risk of injury or illness including but not limited to the items listed in paragraph (B)(1)(a) - (l) of rule 3701-31-04 of the Administrative Code.
- (H) "Inlet" means a fitting or location in a public swimming pool through which water is returned to the public swimming pool from the circulation.
- (I) "Licensee" means the person specified on the application for a license to operate or maintain a public swimming pool, and to whom a currently valid license has been issued by the licensor having jurisdiction. If a transfer of the right to operate or maintain the public swimming pool has occurred and a license has been transferred under paragraph (B)(3) of rule 3701-31-03 of the Administrative Code, "licensee" means the person who is specified on the license application and to whom the license was transferred and does not mean the person who formerly operated or maintained the public swimming pool.
- (J) "Licensor" means a city board of health or a general health district, an authority having the duties of a city board of health as authorized pursuant to section 3709.05 of the Revised Code, or the director of the department of health when

acting under section 3749.07 of the Revised Code. "Licensor" also means an authorized representative of any of these entities.

- (K) "Main drain" means an outlet located at or near the deepest portion of a public swimming pool.
- (L) "ORP" means oxidation-reduction potential, the measurement of the oxidizing and disinfecting condition of water as measured in millivolts.
- (M) "Outlet" means a fitting or location in a public swimming pool through which water is drawn from the pool to the circulation system.
- (N) "Person" means the state, any political subdivision, special district, public or private corporation, individual, firm, partnership, association, or any other entity.
- (O) "Plans" means all items that are required to be submitted to the director in accordance with paragraph (D) of rule 3701-31-05 of the Administrative Code and any additional information requested by the director for purposes of determining whether the public swimming pool will meet the requirements of this chapter.
- (P) "Project" means construction, installation, or substantial alteration of a public swimming pool.
- (Q) "Private residential swimming pool" means any indoor or outdoor structure, chamber, or tank containing a body of water for swimming, diving, or bathing located at a dwelling housing no more than three families and used exclusively by the residents and their non-paying guests. For the purposes of this paragraph, "dwelling" includes an individual room or individual suite of rooms at a hotel, motel, or other establishment providing temporary lodging.
- (R) "Public bathing area" means an impounding reservoir, basin, lake, pond, creek, river, or other similar natural body of water.
- (S) "Public spa" means any public swimming pool that is typically operated as a smaller, higher temperature pool for recreational or nonmedical uses.
 - (1) "Smaller" means less than five thousand gallons in volume.
 - (2) "Higher temperature" means greater than ninety degrees Fahrenheit.
- (T) "Public swimming pool" means any indoor or outdoor structure, chamber, or tank containing a body of water that is intended to be used collectively for swimming, diving, or bathing and is operated by any person whether as the owner, lessee, operator, licensee, or concessionaire, regardless of whether or not a fee is charged for use. A public swimming pool does not mean any public bathing area or private residential swimming pool. As used within these rules,

public swimming pool collectively means a public swimming pool, wading pool, public spa, special use pool or a spray ground, unless specifically identified.

- (1) "Diving" does not include professional stunt diving, theatrical diving performances and similar attractions if the body of water used for the stunt diving, theatrical performance, or other attraction is used exclusively for that purpose.
- (2) "Bathing" means any activity with a body of water, except for personal cleansing, religious ceremonies, medical purposes under the care of a professional certified by the Ohio state medical board pursuant to section 4731.053 (D)(1) of the Revised Code or participation in aquarium shows, professional stunt diving, theatrical performances, dunking tanks, and similar attractions if the body of water is used exclusively for that purpose.
- (3) "Structure, chamber or tank" means any container that does not possess both of the following characteristics:
 - (a) The container is easily portable when empty; and
 - (b) The container is not capable of holding more than one hundred fifty gallons of water.
- (U) "Recreational water illness" (RWI) means any illness spread by swallowing, breathing, or having contact with contaminated water or air at a public swimming pool.
- (V) "Safety vacuum release system" (SVRS) means a device that meets the requirements within ANSI/ASME A112.19.17-2010 and when properly installed per manufacturer specifications, will release the vacuum or disable the pump immediately when a drain outlet becomes blocked and includes automatic pump shut-off systems (APSOS).
- (W) "Shallow" means a water depth of five feet or less.
- (X) "Slides" means a special feature at a public swimming pool that includes the following:
 - (1) "Kiddee slide" means a slide not more than thirty-six inches in height and designed for use by young children.
 - (2) "Playground slide" means a straight or twisting slide with high sides, a starting platform and is not more than forty-two inches in height.
 - (3) "Recreational slide" means a slide with a starting platform less than three meters in height from the deck level.

(4) "Water slide" means a straight or twisting slide along which a continuous stream of water passes, down which patrons slide independently or riding on a sled or mat, and which empties into a catch pool or special use pool.

"Catch pool" as used in these rules, means a pool specially designed and sized only to provide a safe splash down area for a water slide at a public amusement area licensed and inspected by the Ohio department of agriculture.

(Y) "Special use pool" means a public swimming pool containing slides, wave generating equipment or other special features that necessitate different design and safety requirements. "Special use pool" does not include any water slide catch pool or wave generating pool at a public amusement area which is licensed and inspected by the Ohio department of agriculture, pursuant to sections 1711.50 to 1711.57 of the Revised Code. As used in this paragraph:

(1) "Special feature" includes, but is not limited to slides, wave-generating equipment, a zero depth entrance, a slow river, fountains, climbing walls, play features or other water features.

(2) "Public amusement area" means any place at which one or more water slides or wave-generating pools are located unless:

(a) Payment for using the water slide or wave-generating pool is included in the fee charged for using a facility that is not intended primarily for operation of amusement rides, as defined in section 1711.50 of the Revised Code, games, or similar attractions. Facilities not intended primarily for operation of amusement rides, games, or similar attractions include, but are not limited to, campgrounds, municipal parks, hotels, motels, apartment or condominium complexes, athletic clubs, and public swimming pools that also are used for swimming or diving; or

(b) The water slide or wave-generating pool is part of a facility that is not intended primarily for operation of amusement rides, games, or similar attractions and either no payment is required or a separate fee is charged for use of the slide or public swimming pool.

(3) "Spray ground" means a special use public swimming pool for bathing and/or interaction with fountains, sprays, jets and other special features designed without standing water when the fountains are turned off so that users have full body exposure with circulated water.

(Z) "Wading pool" means a public swimming pool that is a maximum of twenty-four inches deep.

(AA) "Water depth" means the depth as measured from the water level to the bottom of a public swimming pool.

(BB) "Water level" means the operating water level of the overflow system on a public swimming pool; for a skimmer system: that is the midpoint of the skimmer throat or, for a gutter system: that is the overflow rim of the gutter.

(CC) Incorporation by reference. This chapter includes references to certain matter or materials. The text of the incorporated materials is not included in the regulations contained in this chapter. The materials are hereby made a part of the regulations in this chapter. For materials subject to change, only the specific version specified in the regulation are incorporated. Material is incorporated as it exists on the effective date of this rule. Except for subsequent annual publication of existing (unmodified) Code of Federal Regulation compilations, any amendment or revision to a referenced document is not incorporated unless and until this rule has been amended to specify the new dates.

(1) Availability. The materials incorporated by reference are available as follows:

(a) American Society for Testing and Materials. Information and copies may be obtained by writing to: ASTM International, 100 Bar Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19426-2959. These documents are available for purchase at www.astm.org. ASTM documents are also generally available at local public libraries and The State Library of Ohio.

(b) American Society of Mechanical Engineers. Information and copies may be obtained by writing to: Information Central Orders/Inquiries, P.O. Box 2300, Fairfield, New Jersey 07007-2300. These documents are available for purchase at <http://catalog.asme.org/>. ASME documents are also generally available at The State Library of Ohio.

(c) American National Standards Institute. Information and copies may be obtained by writing to: ANSI Attn: Customer Service Department, 25 W. 43rd Street, 4th floor, New York, New York 10036. These documents are available for purchase at <http://webstore.ansi.org/default.aspx>. ANSI documents are also generally available at The State Library of Ohio.

(2) Incorporated Materials.

(a) ASTM F441/F441M-99, "Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80".

(b) A112.19.8-2007, "Suction Fittings for Use in Swimming Pools, Wading Pools, Spas and Hot Tubs".

(c) A112.19.17-2010, "Manufactured Safety Vacuum Release Systems (SVRS) for Residential and Commercial Swimming Pool, Spa, Hot Tub, and Wading Pool Suction Systems".

Responsibilities of the director of health.

- (A) Forms. The director shall approve forms to be used by the department and licensor for plan approval, construction verification inspection, compliance inspections and the equipment inventory of public swimming pools.
- (B) State Program Fees. The director shall ensure that the following fees are collected and used for administration and enforcement of this chapter:
- (1) Individual license. An annual license fee established under this rule shall include an additional amount of seventy-two dollars for each license issued on or after April 1, 2011 and eighty dollars for each license issued on or after April 1, 2012.
 - (2) Additional license(s). If multiple public swimming pools are located at the same address, each additional license shall be assessed an amount of forty-seven dollars for each license issued on or after April 1, 2011 and fifty-five dollars for each license issued on or after April 1, 2012.
- (C) Plan review. The director of health shall, within thirty days of receiving complete plans for approval, either approve or disapprove the plans or, in the case of incomplete plans, request additional information. If the director requests additional information, the director shall approve or disapprove the plans within thirty days after receiving the additional requested information.
- (1) Design variance. The director may grant a design variance request submitted under paragraph (G)(1) of rule 3701-31-05 of the Administrative Code if the requested variance is not contrary to Chapter 3749. of the Revised Code, there is good cause for the variance and the variance will not result in any adverse effect on the public health or safety.
 - (2) Shorter turnover rates. In accordance with paragraph (F)(1)(e) of rule 3701-31-05.1 of the Administrative Code the director may require a shorter turnover rate during plan review.
 - (3) Plan approval. The director shall issue a letter to the owner and a copy shall be issued to the licensor that the plans have been approved.
 - (a) Plan approval period. Except as otherwise provided in this rule, a plan approval issued by the director shall be valid for two years after the date on which the director issues the approval.
 - (b) Plan approval extension. The director may grant one extension for a period not to exceed two years from the date the approved plans expire, if the director finds that the applicant has made a good-faith effort to complete the construction, installation, renovation, or substantial alteration but has failed to complete it for reasons beyond the applicant's

control. A request for an extension shall be filed with the director in writing before the expiration of the two-year period. If the construction, installation, or substantial alteration has not been completed within the two-year period or within the limit of any extension granted under this paragraph, the plans shall be resubmitted in accordance with paragraphs (D) and (F) of rule 3701-31-05 of the Administrative Code.

(c) Revision to approved plans. A person who has received a plan approval under paragraph (G)(2) of rule 3701-31-05 of the Administrative Code who wishes to alter any aspect of the approved plans, other than as provided in paragraph (C)(3)(d) of this rule or as otherwise provided in this paragraph, shall file a written request, including drawings when necessary, for amendment of the approved plans. The director shall grant the request unless the amendments will result in noncompliance with a requirement of Chapter 3749. of the Revised Code or this chapter, subject to any variances that the director may grant.

(d) Substantial revisions to the design. A person who has received a plan approval under paragraph (G)(2) of rule 3701-31-05 of the Administrative Code who wishes to make substantial changes to the design from the originally approved plans shall file new plans in accordance with paragraphs (D) and (F) of rule 3701-31-05 of the Administrative Code.

As used in this paragraph, "substantial revision from the originally approved plans" means a redesign of the circulation system components and/or equipment, a change from a skimmer overflow system to a gutter overflow system or from a gutter overflow system to a skimmer overflow system, an increase of more than five per cent in pool volume, or a change in layout, depths, or other dimensional features that significantly affects safety.

(e) Plan approval transfer. A plan approval issued under this rule may be transferred. The person to whom the plan approval is transferred shall notify the director no more than ten days after the transfer occurs and otherwise shall comply with the requirements of this rule.

(4) Plan disapproval. The director may disapprove plans at any time for either of the following reasons: The applicant for plan approval fails to comply with any requirement for Chapter 3749. of the Revised Code or this chapter; or the proposed construction, installation, renovation, or other substantial alteration would not comply with any requirement of Chapter 3749. of the Revised Code or this chapter.

(a) Hearing request. Any person aggrieved by the director's disapproval of plans under this rule may, within thirty days following receipt of the director's notice of disapproval, request a hearing on the matter. The

hearing shall be held in accordance with Chapter 119. of the Revised Code and may be appealed in the manner provided in that chapter.

- (D) Plan verification construction inspections. The director or a licensor authorized by the director shall verify, in accordance with paragraph (H) of rule 3701-31-05 of the Administrative Code, that the construction or alterations are consistent with the approved plans.
- (E) Limited variance - director review. Upon receipt of a variance request from a licensor in accordance with paragraph (H) of rule 3701-31-03 of the Administrative Code, the director may approve a limited variance.
- (F) Surveys of health districts; list of approved districts. The director of health shall annually survey each health district that licenses public swimming pools to determine whether or not the health district is in substantial compliance with this chapter and the rules adopted thereunder. If the director determines that a health district is in substantial compliance, the health district shall be placed on an approved health district licensing list. The director shall, as determined necessary, conduct additional surveys of health districts and shall remove from the approved health district licensing list any health district not in substantial compliance with this chapter and the rules adopted thereunder.
 - (1) Noncompliance. If the director determines that a health district is not eligible to be placed on the approved health district licensing list, the director shall certify the same to the board of health of the health district and shall perform the duties of the health district in that area until the health district is eligible for placement on the approved list. All fees payable to the health district during the time that the director performs the duties of the health district and all other such fees that have not been expended or otherwise encumbered shall be deposited by the director in the state treasury to the credit of the general operations fund created by section 3701.83 of the Revised Code, to be used by the director in his capacity as a licensor. The director shall keep a record of the fees so deposited and, when the health district is placed on the approved list, shall transfer any remaining balance of the fees to the health district swimming pool fund created under division (E) of section 3749.04 of the Revised Code.
 - (2) Survey reports shall be sent to the board of health within sixty days of the survey being completed.
- (G) Other director duties. The director shall maintain a listing of the following approvals:
 - (1) Logos. The director shall review all logos prior to approval and installation or application on the bottom of a public swimming pool.

- (2) Interior surface colors. A list of approved colors for the interior surface of public swimming pools in accordance with paragraph (C)(1)(b) of rule 3701-31-05.1 of the Administrative Code.
- (3) Automatic chemical controllers. A list of acceptable automatic chemical controllers in accordance with paragraph (D)(7)(e) of rule 3701-31-04 of the Administrative Code.
- (4) Life guard, first aid and CPR training. A list of approved training organizations in accordance with paragraphs (E)(4)(e)(viii) - (x) of rule 3701-31-04 of the Administrative Code.

(A) Pre-licensure requirements. Prior to issuing a license to operate a newly constructed or substantially altered public swimming pool, the licensor shall determine that plans have been approved in accordance with paragraph (C)(3) of rule 3701-31-02 of the Administrative Code and that all plan verification inspections have been completed in accordance with paragraph (H) of rule 3701-31-05 of the Administrative code.

(1) Initial license inspections. In accordance with paragraph (F) of this rule, the licensor shall inspect each public swimming pool in his jurisdiction to determine whether or not the public swimming pool is in compliance with Chapter 3749. of the Revised Code and this chapter prior to the issuance of an initial license. The licensor shall make the initial inspection within five days from the date of receipt of notification that the public swimming pool is ready for operation. For the purposes of this chapter, the licensor shall maintain a record of each inspection for a period of at least five years.

As used in this paragraph: "Initial license" means a license issued for operation or maintenance of a public swimming pool or of a public swimming pool that is being opened for the first time or that is being reopened after the license for its operation or maintenance has been expired for more than one year or has been revoked.

(B) Licensing. Each license issued shall be effective from the date of issuance until the last day of May of the following year.

(1) License application. The licensor shall process complete applications to operate a public swimming pool within thirty days of receipt. The licensor shall either issue a license or request additional information from the applicant.

(2) License renewal. Applications for license renewal shall be in April. Applications received after April thirtieth of each year shall be assessed a penalty as authorized by section 3709.09 of the Revised Code. Applications post marked on or before April thirtieth shall be considered timely.

(3) License transfer. The licensor may allow the transfer of a license to operate a public swimming pool provided the licensor has received satisfactory evidence that the applicant has or will have the legal right to operate or maintain the public swimming pool. Licenses subject to current enforcement action shall not be transferred.

(4) Denial, suspension, revocation. The licensor of the health district in which a public swimming pool is located may, in accordance with Chapter 119. of the Revised Code, refuse to grant a license or may suspend or revoke any

license issued to any person for failure to comply with the requirements of Chapter 3749. of the Revised Code or this chapter.

- (C) Cost methodology. Each licensor shall utilize the cost methodology specified in rule 3701-36-14 of the Administrative Code to calculate fees for providing services specified in section 3749.04 of the Revised Code. The calculated fees shall not exceed the cost of licensing and inspecting public swimming pools.
- (1) Program account. Except for the amounts required to be included as part of an annual license fee under paragraphs (B)(1) and (B)(2) of rule 3701-31-02 of the Administrative Code and except as provided in division (B) of section 3749.07 of the Revised Code, all license fees collected by a licensor shall be deposited into the public swimming pool fund created by division (E) of section 3749.04 of the Revised Code in each health district.
- (D) License fee categories. Except as provided in paragraphs (D)(4) - (D)(6) of this rule, the license fee established by a licensor pursuant to section 3709.09 of the Revised Code for a public swimming pool shall be specified in accordance with the following categories:
- (1) Individual public swimming pools;
- (2) Individual public spas; and
- (3) Individual special use pools.
- (4) Individual and Additional licenses. Each individual public swimming pool shall be issued an individual license based on the categories listed above. Facilities where multiple public swimming pools are located at the same address, the licensor may establish a reduced fee for each additional license.
- (5) Government/tax supported schools. For public swimming pools which are operated by the federal government, the state government, or a county, city, township, village, or tax-supported primary or secondary public school, the board of health of a city or general health district may adopt fees that are less than the fees established under paragraphs (D)(1) - (D)(3) of this rule.
- (6) License transfer fee. In accordance with rule 3701-36-14 of the Administrative Code the licensor may adopt a license transfer fee.
- (E) State fee transmittal schedule. The licensor shall collect and transmit the amounts required in paragraphs (B)(1) and (B)(2) of rule 3701-31-02 of the Administrative Code to the treasurer of the state to be deposited in the general operations fund created in section 3701.83 of the Revised Code within forty-five days after the end of the quarter in which it is collected.

(F) Compliance inspections. The licensor shall annually inspect every public swimming pool to determine compliance with Chapter 3749. of the Revised Code and this chapter. A licensor may inspect a public swimming pool anytime it is open to the public. To the extent practical inspections shall be conducted during normal business hours.

- (1) An equipment inventory shall be conducted once each calendar year on a form prescribed by the director.
 - (2) The licensor shall verify that any equipment replacement is consistent with plans submitted and approved in accordance with paragraph (D)(4) of rule 3701-31-05 of the Administrative Code.
 - (3) The licensor is responsible for verifying that the licensee maintains complete records on file, as specified in paragraph (B)(4) of rule 3701-31-04 of the Administrative Code.
 - (4) Record retention. The licensor shall maintain all current public swimming pool plans as long as the pool is in operation and for one year after the license expires. The licensor shall maintain a record of each inspection and equipment inventory for a period of at least five years.
 - (5) Prosecution or injunctive relief. The prosecuting attorney of the county, the city director of law, or the attorney general, upon complaint of the licensor, shall prosecute to termination or bring an action for injunctive relief, or both, against any person violating sections 3749.01 to 3749.09 of the Revised Code or any rule adopted thereunder.
- (G) Turnover rates. The licensor may allow a longer turnover rate at an existing public swimming pool under the following conditions:
- (1) If the licensee documents that the public swimming pool consistently meets the water quality parameters in paragraph (C) of rule 3701-31-04 of the Administrative Code.
 - (2) If the licensor finds that the public swimming pool is consistently in violation of paragraph (F)(1) of rule 3701-31-05.1 of the Administrative Code and the water quality parameters in paragraph (C) of rule 3701-31-04 of the Administrative Code, or if all of the components of the circulation system are replaced, the licensee shall bring the pool into compliance with the turnover rate requirements specified in paragraph (F)(1) of rule 3701-31-05.1 of the Administrative Code.
- (H) Limited variance-licensor review. Except as provided in paragraph (C)(1) of rule 3701-31-02 of the Administrative Code, the licensor, with the approval of the director, may grant a variance from the requirements of rules 3701-31-04 of the Administrative Code that will not be contrary to the public interest, where a licensee shows to the satisfaction of the licensor that there is good cause for the

issuance of a variance and that the variance will not result in any adverse effect on the public health and safety. The terms, conditions, and expiration date of the limited variance shall be set forth in any variance issued by the licensor. Failure to comply with such terms and conditions shall constitute a violation of this rule and may result in the revocation of the variance and the license. Variances issued by the licensor are not transferable. No variance shall be granted that will either defeat the spirit and general intent of Chapter 3701-31 of the Administrative Code or that will be contrary to Chapter 3749. of the Revised Code.

3701-31-04

Responsibilities of the licensee.

- (A) Submission of plans and licensure. Any person constructing or altering a public swimming pool on or after the effective date of this rule shall comply with rule 3701-31-05 of the Administrative Code. Any person operating a public swimming pool shall obtain a license to operate the public swimming pool prior to operation as follows:
- (1) License to operate. No person shall operate or maintain a public swimming pool without a license issued by the licensor having jurisdiction.
 - (a) License application. At the time of application for a license, the applicant shall provide to the licensor the name, address, and telephone number of a person or persons who can be contacted regarding inspection, maintenance, or emergency aspects of the public swimming pool and to whom the licensor may send notice of orders and other licensure actions. The applicant also shall provide the exact street address or location of the pool. After issuance of a license, the licensee shall report any changes in this information to the licensor promptly.
 - (b) New licenses. An applicant for a new public swimming pool license, other than renewal, shall provide not less than a five day notice to the licensor that the public swimming pool is ready for operation and inspection in accordance with paragraph (A)(1) of rule 3701-31-03 of the Administrative Code.
 - (c) License renewal. Every person who intends to operate or maintain an existing public swimming pool shall, during the month of April of each year, apply to the licensor having jurisdiction for a license to operate the public swimming pool. Any person proposing to operate or maintain a new or otherwise unlicensed public swimming pool shall apply to the licensor having jurisdiction at least thirty days prior to the intended start of operation of the public swimming pool. Within thirty days of receipt of an application for licensure of a public swimming pool the licensor shall process the application and either issue a license or otherwise respond to the applicant regarding the application.
 - (d) License transfer. The licensee may request a transfer of the license in accordance with paragraph (B)(3) of rule 3701-31-03 of the Administrative Code.
 - (2) Authorization to inspect. The licensee of a public swimming pool shall allow the licensor having jurisdiction and the director to have access to the pool and the surrounding area, including the pump room, for purposes of administration and enforcement of Chapter 3749. of the Revised Code and this chapter. The licensee shall not interfere with an inspection by the licensor or the director.

- (3) Request for a limited variance. A licensee may request of the licensor a limited variance in accordance with paragraph (H) of rule 3701-31-03 of the Administrative Code. Any request for a limited variance shall include any documentation as required by the licensor.
 - (4) Compliance to the rules. No person, or licensee shall violate sections 3749.01 to 3749.09 of the Revised Code or any rule adopted thereunder.
- (B) Operations. The licensee of a public swimming pool shall maintain the pool, its components, appurtenant facilities and the surrounding area in a safe, clean and sanitary condition, in good repair and in accordance with this chapter.
- (1) Critical operational items. The licensee shall not operate a public swimming pool or portion thereof when an imminent health hazard is present, including but not limited to the following:
 - (a) A covering for any main drain or other suction outlet that is not properly installed, securely fastened or in compliance with the requirements within ANSI/ASME A112.19.8-2007;
 - (b) A safety vacuum release system that is not functioning;
 - (c) When the disinfection residual is less than what is required in accordance with paragraph (D)(6) of this rule;
 - (d) When the circulation and/or disinfection system is not operating properly;
 - (e) An automatic chemical controller that is not functioning in accordance with paragraph (D)(7) of this rule;
 - (f) When a lifeguard is not provided as required in paragraph (E)(4) of this rule;
 - (g) Water clarity that is insufficient to clearly see a Secchi disc or a drain outlet cover at the bottom of a public swimming pool;
 - (h) Natural or artificial light that is not sufficient to see the bottom of a public swimming pool;
 - (i) When a fecal accident occurs until it has been properly treated in accordance with the procedures in Appendix A of this rule;
 - (j) When a recreational waterborne illness is linked to a public swimming pool either by a current epidemiological investigation or positive water sample results until it has been properly treated in accordance with the procedures in Appendix A of this rule;

- (k) The improper or unauthorized use or storage of chemicals that may present an imminent health hazard to patrons or staff; or
 - (l) When an electrical hazard may exist at a public swimming pool in accordance with paragraph (S)(3) of rule 3701-31-05.1 of the Administrative Code.
- (2) Authorized representative. An authorized representative of the licensee who is familiar with the public swimming pool equipment, operation and safety shall be either on site or within thirty minutes of the site whenever the pool is open for use, to respond to requests for information or assistance by patrons of the pool, the licenser, or the director.
- (3) Staff training. Operating personnel shall be trained in the operation of all equipment, procedures for handling, storing and using chemical compounds, procedures for performing and interpreting the required onsite chemical tests and the appropriate emergency procedures.
- (4) Record Keeping. The licensee of a public swimming pool or their authorized representative shall maintain records, as follows:
- (a) Water quality information shall be recorded in writing and in the required frequency as set forth in this rule:
 - (i) The disinfectant residual shall be tested daily at the poolside deck prior to bathers entering the public swimming pool and every four hours when the public swimming pool is open for use. The disinfectant residual for a public swimming pool where an automatic chemical controller is installed shall be tested daily at the pool deck prior to bathers entering the water and every twelve hours the public swimming pool is open for use. A manual test for the disinfectant residual shall be performed at the spray nozzles on at least one special feature every six hours when the public swimming pool is open for use;
 - (ii) Combined chlorine shall be tested daily prior to bathers entering the public swimming pool and every four hours the public swimming pool is open for use;
 - (iii) pH shall be tested daily prior to bathers entering the public swimming pool and every four hours when the public swimming pool is open for use. A manual test for pH shall be performed at the spray nozzles on at least one special feature every six hours when the public swimming pool is open for use;
 - (iv) Water temperature shall be recorded not less than once per day;

- (v) Water clarity shall be assessed continuously while the public swimming pool is in use and any problem with clarity shall be recorded as it occurs;
 - (vi) Total alkalinity shall be tested not less than once per week;
 - (vii) Cyanuric acid shall be tested not less than once per week;
 - (viii) Total dissolved solids shall be tested in accordance with the manufacturer of a chlorine (salt) generator's specifications and whenever a water clarity problem occurs;
 - (ix) Any chemical that is added to the public swimming pool other than those chemicals that are routinely used for disinfection;
 - (x) All injuries shall be recorded as they happen; and
 - (xi) All fecal accidents shall be recorded as they happen. The response to the fecal accident shall also be recorded.
- (b) Lifeguard or other safety training shall be in accordance with paragraph (E)(4)(e) (viii)-(x) of this rule.
- (c) Test results and service records for automatic chemical controllers and SVRS's shall be maintained.
- (5) Record retention. Records shall be kept on file by the licensee for not less than two years and shall be made available, upon request, for review by the licensor or the director.
- (6) Maintenance and Repair. All equipment shall be maintained in a clean, safe and sanitary condition, in good repair and in accordance with the manufacturer's specifications, the approved plans or this chapter of the Administrative Code as follows:
- (a) The structure of a public swimming pool shall be maintained with an impervious water tight tank with cleanable surfaces.
 - (i) A vinyl liner may be used to repair the shell of an existing public swimming pool that is leaking.
 - (ii) Whenever a public swimming pool is repainted, resurfaced or a liner is installed, the interior surfaces of public swimming pools shall be painted white unless the color is submitted to and approved by the director.
 - (a) Lane lines shall not exceed twelve inches wide unless painted in accordance with the applicable competitive standard.

- (b) Logos applied to the bottom of a public swimming pool shall be submitted to the director for approval.
- (b) Pipe replaced for new construction or for maintenance and repair shall be rigid PVC meeting ASTM F441/F441M-99 or equivalent in accordance with paragraph (C)(2) of rule 3701-31-05.1 of the Administrative Code.
- (c) Cross connection hazards shall be prevented in accordance with paragraph (E) of rule 3701-31-05.1 of the Administrative Code.
- (i) Backflow prevention devices shall be maintained.
- (ii) Lines discharging into backwash or drainage sumps shall have an air gap and remain open to freely drain.
- (iii) Floor areas in equipment, storage and filter rooms shall be free of standing water.
- (iv) Condensate from equipment shall not be added to pool water.
- (v) The discharge of any water from a public swimming pool shall be in accordance with paragraph (E)(1) of rule 3701-31-05.1 of the Administrative Code.
- (d) There shall be equipment on site for complete removal of the water from a public spa.
- (e) Equipment labels shall be maintained in accordance with paragraph (F)(12) of rule 3701-31-05.1 of the Administrative Code or information about each piece of equipment shall be kept on file. In addition to the equipment listed in (F)(12) of rule 3701-31-05.1 of the Administrative Code any SVRS installed on a public swimming pool shall also have an equipment label.
- (f) The circulation system turnover rate in paragraph (F)(1) of rule 3701-31-05.1 of the Administrative Code shall be maintained continuously twenty-four hours a day during all parts of the year that the public swimming pool is in use.
- (i) The licensor may allow a longer turnover rate at an existing public swimming pool if the licensee documents that the public swimming pool consistently meets the water quality parameters in paragraph (C) of this rule.
- (ii) If the licensor finds that the public swimming pool is consistently in violation of paragraph (F)(1) of rule 3701-31-05.1 of the Administrative Code and the water quality parameters in paragraph

(C) of this rule, or if all of the components of the circulation system are replaced, the licensee shall bring the public swimming pool into compliance with the turnover rate requirements specified in paragraph (F)(1) of rule 3701-31-05.1 of the Administrative Code.

- (g) Any throttle valve that is installed in accordance with paragraph (F)(3) of rule 3701-31-05.1 of the Administrative Code shall be maintained and properly adjusted.
- (h) All meters and gauges required by shall be maintained and functional twenty-four hours a day during all parts of the year the public swimming pool is in operation in accordance with paragraph (F)(2)(b)(i) of rule 3701-31-05.1 of the Administrative Code.
- (i) A means of determining rate-of-flow shall be properly installed, provided and maintained on all water pumps so that the rate of circulation can be accurately determined.
- (j) All SVRS's shall be maintained and functional at all times the public swimming pool is in use. These devices shall be tested in accordance with paragraph (B)(4)(c) of this rule.
- (k) Outlet covers shall be secured at all times so they cannot be removed without the use of tools. Outlet covers shall meet the requirements of ANSI/ASME A112.19.8-2007. Equalizer lines shall have compliant covers or be removed or plugged
- (l) As required by the Virginia Graeme Baker Pool and Spa Safety Act, Public Law 110-440, 121 STAT. 1794 (2007), 15 U.S.C. Sec. 8001, all public swimming pools shall have a secondary means installed to prevent entrapment or evisceration of the public swimming pool patrons. The secondary means may be any of the following and shall be submitted to the director for plan approval prior to installation in a public swimming pool:
 - (i) A second main drain;
 - (ii) A gravity flow drainage system with an unblockable outlet cover;
 - (iii) An unblockable outlet cover with a compatible sump; or
 - (iv) A SVRS that is properly installed.
- (m) The mixing-holding tank or the holding tank for a spray ground described in paragraphs (Y)(2)(a)(i) and (Y)(3) of rule 3701-31-05.1 of the Administrative Code shall operate without circulation "dead spots", and shall be cleaned and drained at least once every one hundred twenty days.

- (n) The water level of a public swimmingpool shall be maintained in accordance with paragraph (BB) of rule 3701-31-01 of the Administrative Code.
- (o) Ladders, stairs, recessed steps and hand rails shall be in good repair and slip resistant at all times.
- (p) Deck surfaces shall be maintained in a clean, smooth and slip-resistant condition, free of any standing water and any sharp, exposed edges or other hazards.
- (q) Depth markers, deck warnings and signs shall be maintained in accordance with paragraph (H) of rule 3701-31-05.1 of the Administrative Code.
- (r) Safety lines shall be maintained in accordance with paragraph (N) of rule 3701-31-05.1 of the Administrative Code.
- (s) Perimeter barriers shall be in good repair at all times to prevent unauthorized entry. All perimeter barriers shall be with gates or doors that are self-closing and lockable unless otherwise permitted by law. Sections of the barrier may be repaired but additions, substantial alterations or replacement of the barrier shall be in accordance with paragraph (O) of rule 3701-31-05.1 of the Administrative Code. At no time shall a gap within the perimeter barrier or between the perimeter barrier and a building or the ground exceed four or six inches, depending on the date of construction.
- (t) All equipment, chemical and other storage areas shall be maintained in a clean condition, free from any hazards and accessible only to authorized personnel in accordance with paragraph (Q)(1) of rule 3701-31-05.1 of the Administrative Code.
- (u) The ventilation system shall be maintained in good repair, free of hazards, according to applicable codes and in accordance with paragraph (R) of rule 3701-31-05.1 of the Administrative Code.
- (v) All electrical components shall be maintained in good repair, free of hazards, according to applicable codes and in accordance with paragraph (S) of rule 3701-31-5.1 of the Administrative Code.
- (w) Adequate lighting shall be maintained when the public swimming pool is in use in accordance with paragraph (T) of rule 3701-31-05.1 of the Administrative Code.
- (x) The spray pad of a spray ground shall be maintained to prevent excessive accumulation of vegetation or debris on its surface.

- (y) All chemicals used for the operation of a public swimming pool shall be stored properly in clearly labeled containers. No chemicals which may present a hazard to the operation of the public swimming pool or to its personnel or patrons, such as insecticides, solvents, strong oxidizers, and flammables, shall be stored or used in a way that could present such a hazard.
- (i) When winterizing a public swimming pool the licensee shall ensure that only antifreeze that is non-toxic and does not contain alcohol or ethylene glycol is used.
- (z) Special features including slides, fountains or other water attractions in public swimming pools shall be maintained in good repair and according to manufacturer specifications.
- (aa) All diving areas and components shall be maintained in good repair. Substantial alterations made to a diving area of an existing pool shall comply with the design requirements in paragraph (K)(1) of rule 3701-31-05.1 of the Administrative Code. Adding a movable fulcrum, changing the length of a board, installing or moving a stand are substantial alterations requiring plan approval.
- (bb) The following requirements apply to all public swimming pools with existing recreational diving areas and equipment.
 - (i) Diving areas and equipment used for recreational diving purposes at existing public swimming pools shall comply with the requirements in this rule and the applicable chart in Appendix B.
 - (ii) The required water depths beneath recreational diving boards shall be maintained as follows:
 - (a) Not less than five feet on either side for diving boards one meter or less in height; or
 - (b) Not less than seven feet on either side for diving boards three meters in height.
 - (iii) Unobstructed headroom above all recreational diving boards used in recreational diving areas shall extend for at least fifteen feet above the board and for not less than ten feet in all directions over the water, measured from the center of the diving end of the board.
 - (iv) Recreational use of diving boards and platforms in excess of three meters in height is prohibited.

(v) Horizontal separation between recreational diving boards shall be at least ten feet. The horizontal distance between a one meter or less recreational diving board and the public swimming pool side wall shall be at least ten feet. The horizontal distance between a three meter recreational diving board and the public swimming pool side wall shall be at least eleven feet. All measurements shall be taken from the center of the diving end of the board at the public swimming pool surface.

(vi) Recreational diving equipment (diving stands and boards) shall have either a fixed fulcrum or an adjustable fulcrum that shall be locked in the forward most position at all times other than for competition training and or events.

(vii) Recreational diving equipment may be replaced in the same location provided the diving board is of the same length and is located at the same height above water level, and the operator provides credible documentation to the licenser that the diving hopper dimensions meet or exceed the standards set forth in paragraph (B)(6)(bb)(i) of this rule.

(cc) Starting blocks shall be used for their intended purpose.

(i) All starting blocks and diving platforms shall be maintained in good repair.

(ii) The licensee shall ensure that starting blocks and diving platforms are not accessible or used except when a coach or instructor is physically present and available to observe the use of the starting blocks and diving platforms.

(7) Domestic animals. Unless otherwise permitted by law, animals are prohibited at a public swimming pool and within the pool barrier defining a pool area during the swim season.

(C) Water quality. The water quality parameters listed below shall be tested in accordance with the frequency established in paragraph (B)(4)(a) of this rule.

(1) Approved water supply. The licensee shall ensure that the water supply for a public swimming pool meets the requirements in paragraph (D) of rule 3701-31-05.1 of the Administrative code.

(2) pH. The pH shall be maintained within the range of not less than 7.2 and not greater than 7.8.

(3) Total alkalinity. The licensee shall maintain the total alkalinity of a public swimming pool at sixty parts per million or above. The total alkalinity shall

not be maintained at such a high level that it impairs the ability to meet the other required chemical and water clarity parameters prescribed by this rule.

- (4) Total dissolved solids. The licensee shall not maintain TDS at any level that impairs the ability of the public swimming pool to meet the water clarity requirement of paragraph (C)(5) of this rule or other water quality parameters prescribed by this rule.
 - (5) Water clarity. The licensee shall ensure that the water in any public swimming pool has sufficient clarity that the deepest point of the public swimming pool is readily visible when viewed from the deck.
 - (6) Pool water temperature. The licensee shall ensure that the water temperature of a public swimming pool normally does not exceed ninety degrees Fahrenheit. However, a public swimming pool may operate at water temperatures above ninety degrees Fahrenheit with the specific approval of the director.
 - (7) Spa water temperature. The licensee shall ensure that the water temperature of a public spa does not exceed one hundred four degrees Fahrenheit. Temperature controls shall not be accessible to the general public. The licensee shall provide a thermometer for monitoring the temperature of the public spa.
 - (8) Spa water replacement. The licensee shall ensure that public spa water is drained completely to waste at least once every thirty days.
- (D) Disinfection. The licensee shall ensure that the public swimming pool maintains the disinfection of the water as follows:
- (1) Gas chlorine shall not be used for disinfection in any public swimming pool.
 - (2) Continuous disinfection. Public swimming pools shall be continuously disinfected using a chemical feeding device connected directly to the circulation system of the public swimming pool. The device shall impart an easily measured residual of chlorine or bromine. No licensee shall continuously disinfect a public swimming pool by means of hand dosing of disinfectant.
 - (3) Spray grounds. Any mixing holding tank shall have sufficient disinfection to prevent the growth of pathogens in accordance with paragraph (B)(6)(m) of this rule.
 - (4) Secondary disinfection systems. The director or the licenser, depending upon whether plan approval or licensure is at issue, may allow the use of other disinfecting devices or chemicals as secondary disinfection systems for

a public swimming pool as long as the required residual of chlorine or bromine can be measured and maintained.

(a) The secondary disinfection system shall not lower the disinfecting strength of the primary disinfectant or otherwise affect the water quality adversely.

(5) Cyanuric acid. The Cyanuric acid level in a public swimming pool shall not exceed seventy parts per million. Cyanuric acid shall be tested in accordance with paragraph (B)(4)(a)(vii) of this rule.

(6) Disinfectant residuals. The licensee shall ensure that the following disinfectant residuals are maintained:

(a) The maximum combined chlorine level shall not exceed 1.0 ppm.

-Free disinfectant residuals-

Public swimming pools	Minimum free residual (ppm)
Chlorine	1.0
Bromine	2.0
Public Spas	
Chlorine	2.0
Bromine	4.0
Spray grounds/special features	As measured at the spray orifice
Chlorine	2.0
Bromine	4.0

The minimum acceptable ORP reading is 650 millivolts.

(7) Automatic chemical controllers. The licensee of a public spa shall provide an automatic chemical controller to continually monitor and adjust the level of free chlorine or bromine and the pH value of the public spa. In addition to public spas, when an automatic chemical controller is installed on a public swimming pool or special feature the device shall:

(a) Continuously monitor the pH and the oxidation-reduction potential (ORP) of the chlorine or bromine.

(b) Display the pH and ORP values.

(c) Activate an audible or visual signal in the event of a system malfunction or when the pH or ORP levels are not within acceptable limits as set forth in this rule;

(d) Have a flow switch or pressure switch with a shut-off valve, that is compatible with the automatic chemical controller to prevent the injection of chemicals when there is no or low circulation flow. The

licensee must test the flow or pressure switch in accordance with the manufacturer's specifications monthly and record the results on the operation report;

- (e) Be on the list of acceptable units. A list of controllers that meet the requirements of this paragraph shall be maintained by the director in accordance with paragraph (G)(3) of rule 3701-31-02 of the Administrative Code.
- (8) Test kits and testing. The licensee and the licensor shall maintain a test kit in good repair and capable of measuring parameters consistent with the required chemical residuals. Unless otherwise stated, all water quality parameters shall be tested in accordance with paragraph (B)(4)(a) of this rule.
- (a) The disinfection tests shall measure the free chlorine residual, the total or the combined chlorine residual or the bromine residual of a public swimming pool, with a test that uses diethyl l-p-phenylenediamine (DPD).
 - (b) If water quality results cannot be obtained by a standard DPD test kit, the licensor may require the more specific FAS-DPD test.
 - (c) Test kit reagents shall be fresh, properly stored to prevent degradation and used in accordance with the manufacturer's specifications.
- (9) Chemical Safety. Chemicals shall not be manually added in a public swimming pool when bathers are present.
- (10) Bacteriological standards. The licensee shall ensure that the water in a public swimming pool meets the bacteriological standard set forth in this paragraph. The licensor may take samples when the licensor has reason to believe that the water does not meet the bacteriological standard.

The bacteriological standard is a negative result for coliform organisms when the sample is analyzed using one of the approved methods listed in rule 3745-81-27 of the Administrative Code.

When an RWI is suspected the licensor may require that a water sample is collected from a public swimming pool for analysis of the suspected organism(s).

- (E) Health and Safety. The licensee shall maintain the public swimming pool in a healthy and safe environment.
- (1) Infectious/Communicable disease. Any person with an obvious infectious wound or experiencing diarrhea or vomiting shall not be permitted by the licensee to use a public swimming pool. No person observed passing feces,

urine, or blood into a public swimming pool shall be permitted to use the public swimming pool. Any person who has been refused entry to or removed from a public swimming pool under this paragraph because of an infectious wound may be granted entry upon presentation of a written statement from a physician that the condition is not infectious. The licensee has the authority to exclude anyone known to have or suspected of having an obvious wound or infectious disease without a written statement of a doctor.

- (2) Safety Equipment. The licensee of a public swimming pool other than a spa, wading pool or spray ground shall provide safety equipment that shall be readily visible from the public swimming pool and easily accessible.
- (a) Public swimming pools that are not required to have a lifeguard on duty shall have the following safety equipment:
- (i) At least one non-telescopic reach pole twelve feet long with a shepherd's crook;
 - (ii) At least one United States Coast Guard approved Type IV personal flotation device (ring buoy, throw bag, or equivalent throwing device) with one-quarter inch diameter line not less than thirty feet or more than sixty feet in length; and
 - (iii) At least one back or spine board. Complexes of public swimming pools that are enclosed within a common perimeter barrier may share a back or spine board.
- (b) Public swimming pools that are required to have a lifeguard on duty shall have the following safety equipment:
- (i) The items in paragraph (E)(2)(a)(i) - (ii) of this rule; and
 - (ii) Back/Spine Board. Whenever a lifeguard is required at a public swimming pool a back/spine board shall be provided and equipped with straps and head immobilizers.
- (c) Safety lines shall be provided in accordance with paragraph (N) of rule 3701-31-05.1 of the Administrative Code, but may be temporarily removed to prevent interference with lap swimming or other aquatic activities.
- (d) First aid equipment, including a first aid kit, that includes unused disposable gloves and a sufficient supply of materials to stop bleeding.
- (e) A working telephone or an emergency call box shall be available for emergency use during all parts of the year a public swimming pool is in use. The emergency device shall be at a public swimming pool or within

five hundred feet of the public swimming pool. The emergency device shall remain continuously connected to a power source, as appropriate, and operational at all times. A sign shall be provided in accordance with paragraph (E)(3)(c) of this rule.

(3) Signs. The following signs shall be posted at all public swimming pools as applicable:

- (a) The licensee of a public swimming pool not required to provide a lifeguard by paragraph (E)(4) of this rule shall post a warning sign prominently in the public swimming pool area which states: "Warning, No Lifeguard".
- (b) The licensee of a public swimming pool not required to provide a lifeguard by paragraph (E)(4) of this rule shall provide signs that state the same or similar language, "Swimming alone is not recommended" and "Children must be supervised".
- (c) When the emergency device, as required in paragraph (E)(2)(e) is not visible in the public swimming pool area, the licensee shall post a sign stating the location of the nearest emergency device.
 - (i) The sign indicating the location of the emergency device shall have on it the name and telephone number of the nearest available police station, fire station, and rescue unit and any other names and telephone numbers likely to be needed in the event of an emergency.
- (d) When any public swimming pool is closed, the licensee shall conspicuously post at least one sign stating "DANGER - POOL CLOSED" or "WARNING - POOL CLOSED".
- (e) The licensee of a public spa shall prominently mount a caution sign adjacent to the entrance to the public spa. The sign shall contain the same or similar language as follows:

CAUTION

- Pregnant women, elderly persons, and persons suffering from heart disease, diabetes or high or low blood pressure should not enter the spa/hot tub without prior medical consultation and permission from their doctor.
- Do not use the spa/hot tub while under the influence of alcohol, tranquilizers, or other drugs that cause drowsiness or that raise or lower blood pressure.
- Do not use at water temperatures greater than one hundred four degrees Fahrenheit.

- Do not use alone.
 - Unsupervised use by children is prohibited.
 - Observe reasonable time limits (that is, ten to fifteen minutes), then leave the water and cool down before returning for another brief stay.
 - Long exposure may result in nausea, dizziness, or fainting
- (f) Safety recommendations shall be posted conspicuously at the slide. The postings shall contain the following information using the same or similar language unless otherwise specified by the manufacturer:
- (i) Single user.
 - (a) Water slides. Only one user at a time is permitted: forming "chains" is prohibited.
 - (b) Recreation slides. Only one user shall be on the platform at any time;
 - (ii) Always check to see if the landing area is clear before entering the slide. Users shall follow directions from the dispatcher;
 - (iii) Users must exit the landing area of the slide immediately;
 - (iv) Users shall ride feet first at all times; stopping or changing position is prohibited;
 - (v) The minimum user height shall be posted. This measurement shall be the manufacturer's recommendation or six inches above the static water level of the pool based on the depth of the public swimming pool immediately beneath the flume on the slide;
 - (vi) For speed slides, users shall remain flat; and
 - (vii) Life jackets or other flotation devices are prohibited other than those designed for the slide and used as directed by the manufacturer.
- (g) Spray ground warning signs. Within one year from the effective date of this chapter all spray grounds shall post the warning sign in accordance with paragraph (Y)(9) of rule 3701-31-5.1 of the Administrative Code.
- (4) Lifeguards. Lifeguards shall be provided by the licensee and on duty during the hours of operation. Lifeguards shall supervise or observe designated areas of the facilities in accordance with one of the following:

- (a) The licensee for public swimming pools less than six thousand square feet shall comply with the surveillance criteria in paragraph (E)(4)(c) of this rule and the following table:

Number of Bathers	-Lifeguard schedule Pool Surface Area (sq ft)-		
	1-1999	2000-3999	4000-5999
1-50	0	1	1
51-150	1*	2	2
151 or more	Exceeds the number of bathers allowed	2	3

* The operator is responsible for providing safety equipment according to paragraph (E)(2)(b) of this rule.

As used in this rule, "bather" means an individual swimming, diving, or bathing in a public swimming pool.

- (i) The licensor may require additional lifeguards as deemed necessary to assure bather safety, based upon the number and types of aquatic activities, special features or the bather load within a public swimming pool.
- (ii) For the purposes of this paragraph and paragraph (E)(4)(b) of this rule, the surface area of a public swimming pool shall be calculated based upon the portion of the public swimming pool that is available for use by patrons.
- (iii) The licensee of a public swimming pool shall use a method approved by the licensor to make a portion of the public swimming pool unavailable for use, provided the number of lifeguards does not go below one for any public swimming pool where lifeguards are required. The lifeguard(s) on duty shall maintain adequate supervision to prevent patrons from entering the closed portions of the public swimming pool.
- (b) Public swimming pools that have a surface area of six thousand square feet or larger shall have a written plan that shows adequate lifeguard coverage based on the four surveillance criteria in paragraph (E)(4)(c) of this rule. The plan shall be available for viewing by the licensor when inspecting the public swimming pool and shall include:
- (i) A sketch of the public swimming pool, including dimensions;
- (ii) The locations of lifeguard stations and special features;
- (iii) Designation of each lifeguard's scanning area;

- (iv) Additional sketches for changes due to bather load and different the surface area of a public swimming pool uses (lessons, team practices, meet, etc) where adjustments in lifeguard coverage are warranted; and
 - (v) The plan must be revised if the public swimming pool size changes, a special feature is added or the lifeguard's line of sight is changed.
- (c) There shall be a sufficient number of lifeguards so that:
- (i) All areas of the public swimming pool surface and bottom open for use are in the direct line of sight by a lifeguard at all times;
 - (ii) All areas of the public swimming pool surface and bottom open for use are reachable by a lifeguard within twenty seconds;
 - (iii) Each lifeguard is able to scan their primary area of the public swimming pool effectively in twenty seconds; and
 - (iv) The safety of the bathers in their activity can be effectively controlled.
- (d) Elevated lifeguard chairs/stands (either stationary or portable) shall be provided, as necessary, for stationary lifeguards and are not necessary for roaming lifeguards. The licensee shall ensure that lifeguards are present at the following locations:
- (i) Any public swimming pool with diving boards/platforms shall have a lifeguard to supervise the diving area whenever the board(s) or platform(s) are in use;
 - (ii) A zero depth or other uniquely designed public swimming pool or section of a public swimming pool, except access ramps less than six feet in width, with water depth that gradually increases from zero inches to greater than twenty-four inches shall be supervised by at least one lifeguard at all times, when this section of the public swimming pool is in use.
 - (iii) A public swimming pool with a slide that is more than ten feet above the deck level shall have a lifeguard stationed with a clear view and rapid access to supervise the landing area when the slide is in use.
 - (a) Where multiple slides exist side-by-side one lifeguard may supervise the landing area of these slides in accordance with the lifeguard table in paragraph (E)(4)(a) of this rule when the slides are in use.

- (b) If the top of the slide is twenty-five feet or more above the deck level, an additional lifeguard shall be required in the landing area when the slide is in use.
- (c) A dispatch procedure shall be used for slides that are in use and greater than ten feet in height to establish safe spacing between riders. The dispatcher shall remain in continual visual or verbal contact with the lifeguard in the landing area. Dispatchers shall be similarly attired and readily identifiable by bathers and lifeguards.
- (d) The licensee may elect to test user swimming proficiency if the user of a water slide is less than the posted minimum user height.
- (e) Lifeguards on duty at a public swimming pool shall:
 - (i) Be capable swimmers and able to perform all lifeguarding tasks authorized by their certification;
 - (ii) Be responsible for the safety of bathers within their designated area of responsibility;
 - (iii) Have a clear and unobstructed view of the public swimming pool bottom and areas under supervision;
 - (iv) Be similarly attired and readily identifiable by bathers and other lifeguards;
 - (v) Be prepared to immediately enter the water;
 - (vi) Not be engaged in swimmer instruction or coaching while on duty;
 - (vii) Have on their person a rescue tube and a CPR pocket mask;
 - (viii) Have a current and valid certification of lifeguard training by an entity on a list maintained by the director;
 - (ix) Have a current and valid certification of training in infant, child and adult cardiopulmonary resuscitation (CPR) including pocket mask, bag valve and (2) person CPR by an entity on a list maintained by the director; and
 - (x) Have a current and valid certification of first aid training by an entity on a list maintained by the director.

Fecal Incident Response Recommendations for Pool Staff*

What do you do when you
find poop in the pool?



*Check for existing guidelines from your local or state regulatory agency before use. CDC recommendations do not replace existing state or local regulations or guidelines.

- These recommendations are for responding to fecal incidents in chlorinated recreational water venues.
- Improper handling of chlorine-based disinfectants can cause injury. Follow proper occupational safety and health requirements when following these recommendations.
- **Pool Closures:** Fecal incidents are a concern and an inconvenience to both pool operators and patrons. Pool operators should carefully explain to patrons why the pool needs to be closed in response to a fecal incident. Understanding that pool closure is necessary for proper disinfection and protection of the health and safety of swimmers is likely to promote support rather than frustration. Pool closures allow chlorine to do its job — to kill germs and help prevent recreational water illnesses (RWIs).

WHAT ARE RECREATIONAL WATER ILLNESSES (RWIs)?

What is the first thing that pops into your head when you think about water safety? Drowning? Slipping? Lightning? All good answers, and all are very important. But, did you know that germs can contaminate swimming water? These germs cause RWIs that have made many people sick.

RWIs are caused by germs such as “Crypto” (KRIP-toe), short for *Cryptosporidium*, *Giardia* (gee-ARE-dee-uh), *E. coli* 0157:H7, and *Shigella* (Shi-GEL-uh).

HOW ARE RWIs SPREAD?

RWIs are spread by swallowing pool water that has been contaminated with fecal matter. How? If someone has diarrhea, that person can easily contaminate the pool. Think about it. Pool water is shared by every swimmer. Really, it’s communal bathing water. It’s not sterile. It’s not drinking water.

The good news is that germs causing RWIs are killed by chlorine. However, chlorine doesn’t work right away. It takes time to kill germs and some germs like Crypto can live in pools for days. Even the best maintained pools can spread illness.

SHOULD ALL FECAL INCIDENTS BE TREATED THE SAME?

No. A diarrheal fecal incident is a higher-risk event than a formed-stool incident. With most diarrheal illnesses, the number of infectious germs found in each bowel movement decreases as the diarrhea stops and the person’s bowel movements return to normal. Therefore, a formed stool is probably less of a risk than a diarrheal incident that you may not see.

A formed stool may contain no germs, a few, or many that can cause illness. You won’t know. The germs that may be present are less likely to be released into the pool because they are mostly contained within the stool. However, formed stool also protects germs inside from being exposed to the chlorine in the pool, so prompt removal is necessary.

Germ Inactivation Time for Chlorinated Water*

Germ	Time
<i>E. coli</i> O157:H7 Bacterium	Less than 1 minute
Hepatitis A Virus	About 16 minutes
<i>Giardia</i> Parasite	About 45 minutes
Crypto Parasite	About 15,300 minutes or 10.6 days [†]

SHOULD YOU TREAT A FORMED FECAL INCIDENT AS IF IT CONTAINS CRYPTO?

No. In 1999, pool staff volunteers from across the country collected almost 300 samples from fecal incidents that occurred at water parks and pools.^{††} CDC then tested these samples for Crypto and *Giardia*. None of the sampled feces tested positive for Crypto, but *Giardia* was found in 4.4% of the samples collected. These results suggest that formed fecal incidents pose only a very small Crypto threat but should be treated as a risk for spreading other germs (such as *Giardia*). Remember a diarrheal fecal incident is considered to be a higher-risk event than a formed-stool fecal incident.

* 1 parts per million (ppm) or mg/L free chlorine at pH 7.5 or less and a temperature of 77°F (25°C) or higher.

[†] Shields JM, Hill VR, Arrowood MJ, Beach MJ. Inactivation of *Cryptosporidium parvum* under chlorinated recreational water conditions. J Water Health 2008;6(4):513–20.

^{††} CDC. Prevalence of Parasites in Fecal Material from Chlorinated Swimming Pools — United States, 1999. MMWR 2001;50(20):410–2.

formed stool in the pool?

Formed stools can act as a container for germs. If the fecal matter is solid, removing the feces from the pool without breaking it apart will limit the degree of pool contamination. In addition, RWIs are more likely to be spread when someone who is ill with diarrhea has a fecal incident in the pool.

diarrhea in the pool?

Those who swim when ill with diarrhea place other swimmers at significant risk for getting sick. Diarrheal incidents are much more likely than formed stool to contain germs. Therefore, it is important that all pool managers stress to patrons that swimming when ill with diarrhea is an unhealthy swimming behavior.

1. **For both formed-stool and diarrheal fecal incidents,** close the pool to swimmers. If you have multiple pools that use the same filtration system — all pools will have to be closed to swimmers. Do not allow anyone to enter the pool(s) until the disinfection process is completed.
2. **For both formed-stool and diarrheal fecal incidents,** remove as much of the fecal material as possible (for example, using a net or bucket) and dispose of it in a sanitary manner. Clean and disinfect the item used to remove the fecal material (for example, after cleaning, leave the net or bucket immersed in the pool during disinfection).

VACUUMING STOOL FROM THE POOL IS NOT RECOMMENDED.

3. Raise the free chlorine to 2 parts per million (ppm), if less than 2 ppm, and ensure pH 7.5 or less and a temperature of 77°F (25°C) or higher. This chlorine concentration was selected to keep the pool closure time to approximately 30 minutes. Other concentrations or closure times can be used as long as the contact time (CT) inactivation value* is achieved (see next page).

4. Maintain free chlorine concentration at 2 ppm and pH 7.5 or less for at least 25 minutes before reopening the pool. State or local regulators may require higher

free chlorine levels in the presence of chlorine stabilizers,[†] which are known to slow disinfection. Ensure that the filtration system is operating while the pool reaches and maintains the proper free chlorine concentration during the disinfection process.



3. If necessary, before attempting the hyperchlorination of any pool, consult an aquatics professional to determine the feasibility, the most optimal and practical methods, and needed safety considerations.

4. Raise the free chlorine concentration to 20 ppm^{¶§} and maintain pH 7.5 or less and a temperature at 77°F (25°C) or higher. The free chlorine and pH should remain at these levels for at least 12.75 hours to achieve the CT inactivation value of 15,300.**

Crypto CT inactivation values are based on killing 99.9% of Crypto. This level of Crypto inactivation cannot be reached in the presence of 50 ppm chlorine stabilizer, even after 24 hours at 40 ppm free chlorine, pH 6.5, and a temperature of 77°F (25°C).^{††} Extrapolation of these data suggest it would take approximately 30 hours to kill 99.9% of Crypto in the presence of 50 ppm or less cyanuric acid, 40 ppm free chlorine, pH 6.5, and a temperature of 77°F (25°C) or higher.

5. Confirm that the filtration system is operating while the water reaches, and is maintained, at the proper chlorine level for disinfection.
6. Backwash the filter after reaching the CT inactivation value. Be sure the effluent is discharged directly to waste and in accordance with state or local regulations. Do not return the backwash through the filter. Where appropriate, replace the filter media.
7. Allow swimmers back into the water only after the required CT inactivation value has been achieved and the free chlorine and pH levels have been returned to the normal operating range allowed by the state or local regulatory authority.

Establish a fecal incident log. Document each fecal incident by recording date and time of the event, whether it involved formed stool or diarrhea, and the free chlorine and pH levels at the time of observation of the event. Before reopening the pool, record the free chlorine and pH levels, the procedures followed in response to the fecal incident (including the process used to increase chlorine levels if necessary), and the contact time.

* CT inactivation value refers to concentration (C) of free chlorine in ppm (or mg/L) multiplied by time (T) in minutes at a specific pH and temperature.

† Chlorine stabilizers include compounds such as cyanuric acid, dichlor, and trichlor.

¶ Many conventional test kits cannot measure free chlorine levels this high. Use chlorine test strips that can measure free chlorine in a range that includes 20–40 ppm (such as those used in the food industry) or make dilutions with chlorine-free water when using a standard DPD test kit.

§ If pool operators want to use a different free chlorine concentration or inactivation time, they need to ensure that CT inactivation values always remain the same (see next page for examples of how to accomplish this).

** Shields JM, Hill VR, Arrowood MJ, Beach MJ. Inactivation of *Cryptosporidium parvum* under chlorinated recreational water conditions. J Water Health 2008;6(4):513–20.

†† Shields JM, Arrowood MJ, Hill VR, Beach MJ. The effect of cyanuric acid on the chlorine inactivation of *Cryptosporidium parvum*. J Water Health 2008; 7(1): 109–114.

How long does it take to disinfect the pool after a fecal incident? This depends on what type of fecal incident has occurred and at which free chlorine levels you choose to disinfect the pool. If the fecal incident is formed stool, follow Figure 1, which displays the specific time and free chlorine levels needed to inactivate *Giardia*. If the fecal incident is diarrhea, follow Figure 2, which displays the specific time and free chlorine levels needed to inactivate Crypto.

Figure 1 *Giardia* Inactivation Time for a Formed-Stool Fecal Incident

Free Chlorine Level (ppm)	Disinfection Time*
1.0	45 minutes
2.0	25 minutes
3.0	19 minutes

* These closure times are based on 99.9% inactivation of *Giardia* cysts by chlorine at pH 7.5 or less and a temperature of 77°F (25°C) or higher. The closure times were derived from the U.S. Environmental Protection Agency (EPA) Disinfection Profiling and Benchmarking Guidance Manual. These closure times do not take into account "dead spots" and other areas of poor pool water mixing.

Figure 2 Crypto Inactivation Time for a Diarrheal Fecal Incident

Free Chlorine Level (ppm)	Disinfection Time*†
10	1,530 minutes (25.5 hours)
20	765 minutes (12.75 hours)
40	383 minutes (6.5 hours)

* Shields JM, Hill VR, Arrowood MJ, Beach MJ. Inactivation of *Cryptosporidium parvum* under chlorinated recreational water conditions. J Water Health 2008;6(4):513–20.

† At pH 7.5 or less and a temperature of 77°F (25°C) or higher.



The **CT inactivation value** is the concentration (C) of free chlorine in ppm multiplied by time (T) in minutes (CT inactivation value = C x T). The CT inactivation value for *Giardia* is 45 and the CT inactivation value for Crypto is 15,300 (pH 7.5 or less and a temperature of 77°F [25°C] or higher). If you choose to use a different free chlorine concentration or inactivation time, you must ensure that the CT inactivation values remain the same.

For example, to determine the length of time needed to disinfect a pool after a diarrheal incident at 15 ppm, use the following formula: $C \times T = 15,300$.

Solve for time: $T = 15,300 \div 15 \text{ ppm} = 1020 \text{ minutes}$ or 17 hours. It would take 17 hours to inactivate Crypto at 15 ppm.

Hyperchlorination to kill *Cryptosporidium**

Cryptosporidium (or “Crypto”) is a chlorine resistant parasite, so even well-maintained pools, water parks, and interactive fountains can spread Crypto among swimmers. If an outbreak of Crypto infections occurs in your community, the health department might ask you to hyperchlorinate. Additionally, to help keep Crypto levels in the water low, you might choose to hyperchlorinate regularly (for example, weekly). If necessary, consult an aquatics professional to determine and identify the feasibility, practical methods, and safety considerations before attempting to hyperchlorinate.

Step 1: Close the pool to swimmers. If you have multiple pools that use the same filtration system — all pools will have to be closed to swimmers and hyperchlorinated. Do not allow anyone to enter the pool(s) until hyperchlorination is completed.

Step 2: Raise the free chlorine concentration (see Table) and maintain pH 7.5 or less and the temperature at 77°F (25°C) or higher.

Step 3: Achieve a contact time (CT) inactivation value of 15,300 to kill Crypto. The CT inactivation value refers to the concentration of free chlorine in parts per million (ppm) multiplied by time in minutes at a specific pH and temperature (see footnote § for guidance if chlorine stabilizer is used).

Use the formula below to calculate contact time (CT)				
Parts per million (ppm) free chlorine	x	Minutes	=	CT
20 [†]	x	765	=	15,300 ^{†,§}
10	x	1,530	=	15,300

Step 4: Confirm that the filtration system is operating while the water reaches and is maintained at the proper chlorine level for disinfection.

Step 5: Backwash the filter thoroughly after reaching the CT inactivation value. Be sure the effluent is discharged directly to waste and in accordance with state or local regulations. Do not return the backwash through the filter. Where appropriate, replace the filter media.

Step 6:** Allow swimmers back into the water only after the required CT inactivation value has been achieved and the free chlorine and pH levels have been returned to the normal operating range allowed by the state or local regulatory authority.

* Check for existing guidelines from your local or state regulatory agency before use. CDC recommendations do not replace existing state or local regulations or guidelines.

† Many conventional test kits cannot measure free chlorine levels this high. Use chlorine test strips that can measure free chlorine in a range that includes 20–40 ppm or mg/L (such as those used in the food industry) or make dilutions for use in a standard DPD test kit using chlorine-free water.

† Shields JM, Hill VR, Arrowood MJ, Beach MJ. Inactivation of *Cryptosporidium parvum* under chlorinated recreational water conditions. J Water Health 2008;6(4):513–20.

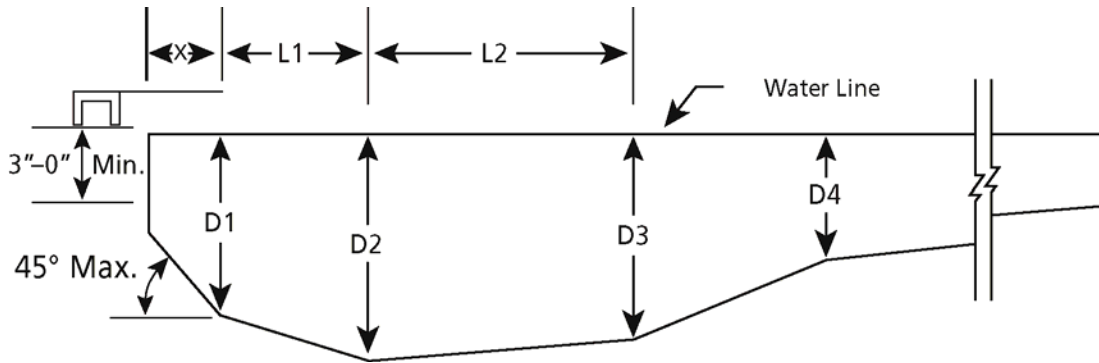
§ Crypto CT inactivation values are based on killing 99.9% of Crypto. This level of Crypto inactivation cannot be reached in the presence of 50 ppm chlorine stabilizer, even after 24 hours at 40 ppm free chlorine, pH 6.5, and a temperature of 77°F (25°C). Extrapolation of these data suggest it would take approximately 30 hours to kill 99.9% of Crypto in the presence of 50 ppm or less cyanuric acid, 40 ppm free chlorine, pH 6.5, and a temperature of 77°F (25°C) or higher. Shields JM, Arrowood MJ, Hill VR, Beach MJ. The effect of cyanuric acid on the chlorine inactivation of *Cryptosporidium parvum* in 20 ppm free chlorine. J Water Health 2009; 7(1):109–114.

** CDC does not recommend testing the water for Crypto after hyperchlorination is completed. Although hyperchlorination destroys Crypto’s infectivity, it does not necessarily destroy the structure of the parasite.

Appendix B

CHART A

(This drawing does not show the shallow portion of the pool)



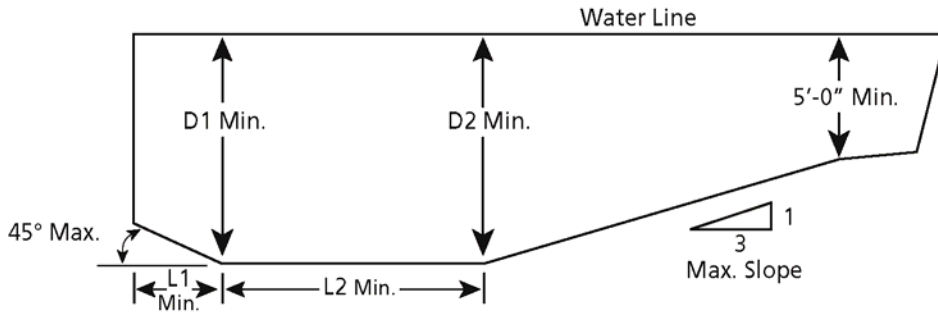
-Table A-

Max board ht. over	Max diving board	Min board overhang	D1	D2	D3	D4	L1	L2
deck Level	8'	24"	7'0"	8'6"	7'6"	5'0"	5'0"	10'0"
26"	10'	2'6"	7'6"	8'6"	8'0"	5'0"	5'0"	10'0"
30"	12'	3'0"	8'0"	9'0"	8'0"	5'0"	5'0"	10'0"
1-Meter	16'	4'0"	8'6"	9'0"	8'0"	5'0"	5'0"	11'5"
3-Meter	16'	4'0"	8'6"	11'0"	10'0"	5'0"	5'0"	11'5"

Note: A deck level board is one-half meter (nineteen inches) or less above water level. A longer board may be used on a lower stand if the water depth meets or exceeds the requirements for the longer board. Diving hopper side and end slopes shall not exceed forty-five degrees.

CHART B

(This drawing does not show the shallow portion of the pool)



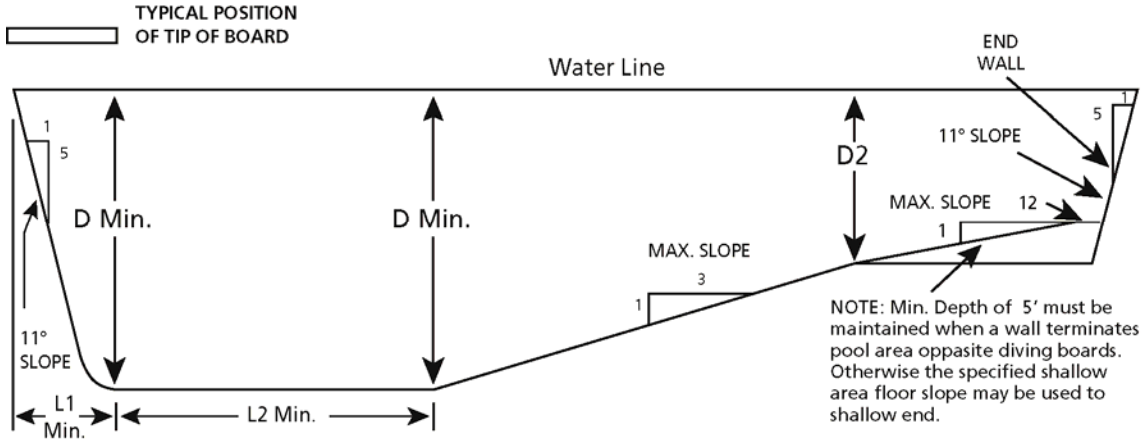
-Table B-

Max board ht. over water	Max diving board length	Min board overhang	D1	D2	L2
19" or less	8' min. only	2'6"	7'6"	8'6"	10'0"
26"	10'	2'6"	7'6"	8'6"	10'0"
30"	12'	3'0"	8'0"	9'0"	10'0"
1-Meter	16'	4'0"	8'6"	10'0"	10'0"
3-Meter	16'	6'0"	11'0"	12'0"	12'0"

Note: A longer board may be used on a lower stand if the water depth meets or exceeds the requirements for the longer board. Diving hopper side and end slopes shall not exceed forty-five degrees.

CHART C

(This drawing does not show the shallow portion of the pool)



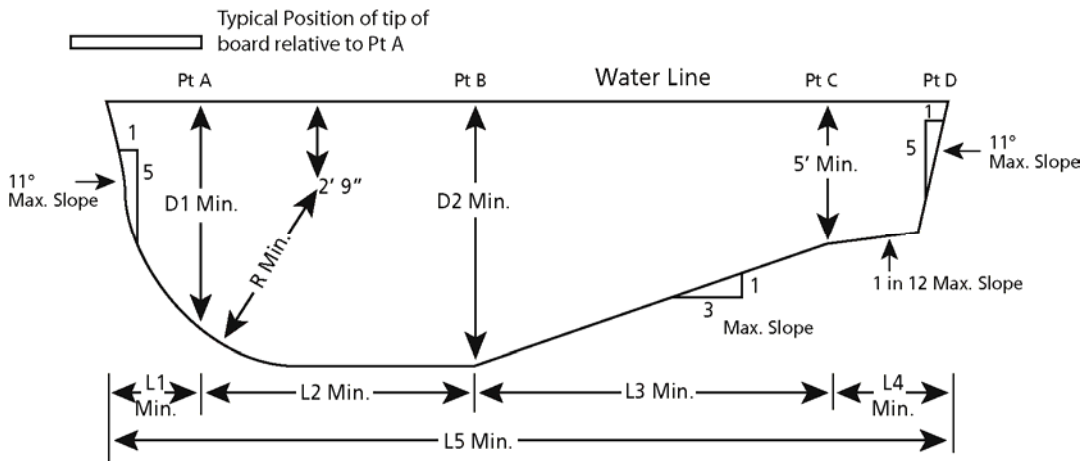
Max. board ht. over water	Max. diving board length	D1	L1	L2	Pool Width
26" (2/3 meter)	10'	8'6"	2'6"	10'0"	20'0"
30" (3/4 meter)	12'	9'0"	3'0"	10'0"	20'0"
1 Meter	16'	10'0"	4'0"	12'0"	20'0"
3 Meter	16'	12'0"	6'0"	12'0"	24'0"

Placement of boards shall observe the following minimum dimensions. With multiple board installations, minimum pool widths must be increased accordingly.

1 Meter (or less) Board to pool side	10'0"
3 Meter Board to pool side	12'0"
Distance between adjacent boards	10'0"

CHART D

(This drawing does not show the shallow portion of the pool)



Max. diving board length	Max. board ht. over	D1	D2	R	L1	L2	L3	L4	L5	Min.	Width of Pool at:	of
										Pt. A	Pt. B	Pt. C
16'	1 meter	8'6"	10'0"	7'0"	4'0"	10'0"	15'0"	2'0"	31'0"	20'0"	22'0"	22'0"
16'	3 meter	11'0"	12'0"	8'6"	6'0"	10'6"	21'0"	0	37'6"	22'0"	24'0"	24'0"

Note: L4 is a minimum dimension to allow sufficient length opposite the board. This may of course be lengthened to form the shallow portion of the pool. L2, L3 and L4 combined represent the minimum distance from the tip of board to pool wall opposite diving equipment.

Note: placement of boards shall observe the following minimum dimensions. With multiple board installations minimum pool widths must be increased accordingly:

3 Meter Board to Pool Side	11'
1 Meter Board or Deck Level Board to 3 Meter	10'
3 Meter to another 3 Meter Board	10'

3701-31-05 Submission of plans prior to licensure.

- (A) No person shall construct, install, or otherwise substantially alter a public swimming pool until the plans have been submitted to and approved by the director of health.
- (B) Plan review fees. As used in this rule, "combination thereof" means two or more public swimming pools that share the same circulation system as defined in paragraph (C) of rule 3701-31-01 of the Administrative Code.

Beginning April 1, 2011 the fees for approval of plans are:

- (1) One thousand four hundred eight dollars for a new or substantially altered public swimming pool or a combination thereof, that has less than two thousand square feet of surface area. This fee includes the cost of up to two inspections as may be required in paragraph (H) of this rule;
- (2) Two thousand two hundred thirty-two dollars for a new or substantially altered public swimming pool or a combination thereof that has two thousand or more square feet of surface area. This fee includes the cost of up to two inspections as may be required in paragraph (H) of this rule;
- (3) In addition to the fee required under paragraphs (B)(1) and (B)(2) of this rule, one thousand four hundred eight dollars for each special feature which is included with any new special use pool or is added to any existing public swimming pool. This fee includes the cost of up to two inspections as may be required in paragraph (H) of this rule;
- (4) Notwithstanding paragraphs (B)(1) to (B)(3) of this rule, and except as otherwise provided in paragraph (B)(6) of this rule, for any project with a total cost of equipment and installation less than five thousand dollars, the fee shall be six hundred fifty-five dollars. This fee does not include the cost of inspections as may be required under paragraph (H) of this rule to determine compliance with the requirements of this chapter. Inspections to determine compliance with this paragraph shall be charged in accordance with the amount established in paragraph (B)(5) of this rule;
- (5) For each plan review inspection in excess of those indicated in paragraphs (B)(1) to (B)(3) of this rule, as applicable, that may be required under paragraph (H) of this rule, the fee shall be two hundred ninety-one dollars.
- (6) Notwithstanding paragraphs (B)(1) to (B)(3) of this rule, in the case of replacement of each type of equipment as specified in paragraph (C)(6) of this rule that is a substantial alteration, the fee shall be forty-five dollars. A plan verification construction inspection is not required.

Beginning on April 1, 2012 the fees for approval of plans are:

- (7) One thousand six hundred sixty-two dollars for a new or substantially altered public swimming pool or a combination thereof, which has less than two thousand square feet of surface area. This fee includes the cost of up to two inspections as may be required in paragraph (H) of this rule;
- (8) Two thousand five hundred seventy-eight dollars for a new or substantially altered public swimming pool or a combination thereof which has two thousand or more square feet of surface area. This fee includes the cost of up to two inspections as may be required in paragraph (H) of this rule;
- (9) In addition to the fee required under paragraphs (B)(7) and (B)(8) of this rule, one thousand six hundred sixty-two dollars for each special feature which is included with any new special use pool or is added to any existing public swimming pool. This fee includes the cost of up to two inspections as may be required in paragraph (H) of this rule;
- (10) Notwithstanding paragraphs (B)(7) to (B)(9) of this rule, and except as otherwise provided in paragraph (B)(11) of this rule, for any project with a total cost of equipment and installation less than five thousand dollars, the fee shall be eight hundred thirty-two dollars. This fee does not include the cost of inspections as may be required under paragraph (H) of this rule to determine compliance with the requirements of this chapter. Inspections to determine compliance with this paragraph shall be charged in accordance with the amount established in paragraph (B)(11) of this rule;
- (11) For each plan review inspection in excess of those indicated in paragraphs (B)(7) to (B)(9) of this rule, as applicable, that may be required under paragraph (H) of this rule, the fee shall be three hundred seventy-three dollars;
- (12) Notwithstanding paragraphs (B)(7) to (B)(9) of this rule, in the case of replacement of each type equipment as specified in paragraph (C)(6) of this rule that is a substantial alteration, the fee shall be fifty dollars. A plan verification construction inspection is not required.

(C) Substantial alteration. As used in this chapter "substantial alteration" means:

- (1) Change in the basic design. Construction that changes the depth, shape or other basic design features of a public swimming pool, in a manner that affects patron safety or the circulation systems design; adds a special feature or changes a deck, the basic design of a diving board, or the perimeter barrier;
- (2) Replacement of the circulation system. Complete replacement of the circulation system, as defined in paragraph (C) of rule 3701-31-01 of the Administrative Code.

- (3) New/relocated dive stand. Installation of a diving board or diving stand, except for a replacement as provided in paragraph (B)(6)(bb)(vii) of rule 3701-31-04 of the Administrative Code;
 - (4) Pipe replacement. Replacement of all return piping, or all skimmer piping, from the filter room to the public swimming pool, or the main drain fitting and pipe.
 - (5) Overflow system replacement. Replacement of more than fifty per cent of a gutter overflow system or more than fifty per cent of the total number of inlets and outlets;
 - (6) Replacement of the following types of equipment:
 - (a) Any circulation, jet or special feature pump. Replacement of a pump motor with one that is similar and does not change the pump output beyond ten per cent is not a substantial alteration;
 - (b) Replacement of a disinfectant feeding device with a different method, capacity or disinfectant. Replacement of a disinfectant feeding device with one that uses the same method, capacity or disinfectant is not a substantial alteration; or
 - (c) Replacement of an individual filter with a filter using different media, or a different filtration rate or backwash capacity. Replacement of a filter with one that uses the same media, and has the same filtration rate or backwash capacity is not a substantial alteration. All filter replacements shall be in accordance with paragraph (F)(5) of rule 3701-31-05.1 of the Administrative Code.
- (D) Plans. Plans for a project that are submitted to the director for review shall include the following items:
- (1) Four complete sets of drawings and specifications, as required by paragraph (F) of this rule;
 - (2) Four copies of a data sheet form prescribed by the director that is signed by the designer of the public swimming pool. The form also shall contain identifying information about the owner, the designer, and the contractor for the project and information about the location and dimensional design of the public swimming pool and its circulation system, gauges, disinfection and chemical feeding equipment, inlets, outlets, piping, plumbing, heating, lighting, and safety features;
 - (3) One copy of a completed plan review application form prescribed by the director that is signed by the designer. The form also shall be signed by the owner of the public swimming pool or shall be accompanied by a letter signed by the owner authorizing the designer to submit plans to the director

on the owner's behalf. The form shall identify the project type and location and the owner, designer, and contractor and shall provide for calculation of the plan approval fee;

- (4) In the case of any equipment replacement specified in paragraph (C)(6) of this rule at an existing public swimming pool, a plan review equipment replacement form, as prescribed by the director, shall be submitted to the director providing information identifying the public swimming pool, the owner and the person making the change, and clearly describes the equipment removed and the equipment installed. The appropriate fee shall be paid for all substantial alteration projects. The information provided on the plan review equipment replacement form shall be accepted in lieu of the information required by paragraphs (D)(1) to (D)(3) of this rule unless the substantial alteration project contains additional plan review elements; and
- (5) Payment. A check or money order for all appropriate plan approval fees specified by paragraph (B) of this rule. The check or money order shall be made payable to "Treasurer, State of Ohio."
- (E) Waiver for plan information. For an application for the approval of plans for substantial alteration of an existing public swimming pool the director, upon request of the applicant for plan approval, may waive submission of any of the items required in paragraph (F) of this rule if the director determines that they are not necessary to review the plans effectively.
- (F) The drawings and specifications required to be submitted by paragraph (D)(1) of this rule for each project shall include:
 - (1) A plot plan showing the location of the project, including a street address or other specific location, and the surrounding area, including elevations and a north arrow;
 - (2) A vicinity map showing local roads and the location of the project with respect to major roads;
 - (3) Plan views and section views, drawn to scale and showing dimensions of the public swimming pool and including decks, walkways, piping (with sizes indicated), and the location of inlets and outlets;
 - (4) Design plans for the circulation system and the disinfection and filtration equipment, including their location and description;
 - (5) Plumbing schematic of the circulation system, disinfection system, and other required equipment;
 - (6) Descriptions of the materials used in construction of the public swimming pool, its finish and details of construction;

- (7) The depths of the public swimming pool and the location of depth markings;
 - (8) The locations of diving areas and descriptions or drawings of diving equipment;
 - (9) The location of starting blocks (platforms);
 - (10) The locations of ladders, stairs, and ramps;
 - (11) Descriptions and drawings of the perimeter barrier and methods of traffic control;
 - (12) Design plans for removing and disposing of backwash water from the filters;
 - (13) A description of the method of filling and emptying the public swimming pool, the source of the water for the public swimming pool and, if an on-site water treatment system will be used to meet the requirements of paragraph (D) of rule 3701-31-05.1 of the Administrative Code the drawings and specifications of the treatment system;
 - (14) The location and content of signs;
 - (15) The number and location of lifeguard chairs; and
 - (16) Design plans for the location of special features and all data and information relating to installation, safe use, and safe operation of the special features, including but not limited to manufacturer's instructions.
- (G) Plan review approval/disapproval. Within thirty days of receiving plans for approval, the director shall act upon them in accordance with paragraph (C) of rule 3701-31-02 of the Administrative Code.
- (1) Design variance. An applicant for plan approval may request a variance from any of the requirements of rules 3701-31-01 to 3701-31-05.1 of the Administrative Code that are considered during plan approval by filing a written request for a variance with the director at least seven days before the date on which the director must approve or disapprove the plans under paragraph (G)(2) and (G)(3) of this rule. The director may grant such a variance if it is not contrary to Chapter 3749. of the Revised Code and if the applicant for the variance has shown to the satisfaction of the director that there is good cause for the variance and that the variance will not result in any adverse effect on the public health or safety.
 - (2) Plan approval. The director shall issue a letter of approval to the owner and a copy shall be issued to the licensor that the plans have been approved.

- (a) A plan approval issued by the director shall be valid for two years in accordance with paragraph (C)(3)(a) of rule 3701-31-02 of the Administrative Code.
 - (b) Plan approval extension. An extension of the plan approval period shall be in accordance with paragraph (C)(3)(b) of rule 3701-31-02 of the Administrative Code.
 - (c) The person to whom a plan approval is transferred shall comply with the requirements of paragraph (C)(3)(e) of rule 3701-31-02 of the Administrative Code.
 - (d) Except as provided in paragraphs (C)(1) of rule 3701-31-02 or paragraph (E) of rule 3701-31-05 of the Administrative Code, construction, installation or other substantial alteration of a public swimming pool shall be performed in accordance with the plans as approved by the director under section 3749.03 of the Revised Code, under rules 3701-31-05 and 3701-31-05.1 of the Administrative Code and any variances granted by the director under paragraph (C)(1) of rule 3701-31-02 of the Administrative Code.
 - (e) Plan approvals issued under this rule shall not constitute an exemption from the land use and building requirements of the political subdivision in which the public swimming pool is or is to be located.
- (3) Plan disapproval. The director may disapprove plans in accordance with paragraph (C)(4) of rule 3701-31-02 of the Administrative Code.
- (a) Any person may appeal plans that have been disapproved by requesting a hearing in accordance with paragraph (C)(4)(a) of rule 3701-31-02 of the Administrative Code.
- (4) Amended plans. Amended plans shall be in accordance with paragraph (C)(3)(d) of rule 3701-31-02 of the Administrative Code.
- (H) Plan verification construction inspections. A person requesting a construction inspection shall contact the director. The director or a licensor authorized by the director shall have two working days from the time notification is received that a public swimming pool is ready for an inspection to verify the construction or alterations.
- (1) Number of inspections. Two or more inspections shall be conducted to verify that the construction or alterations are consistent with the approved plans. The inspections shall be conducted as follows:
- (a) If necessary one or more rough inspections shall be conducted before concrete or fill is placed to verify that all of the piping, inlets, skimmers

or gutters, and drains in and to the public swimming pool and surrounding area were installed in accordance with the approved plans. More than one inspection shall be conducted if the piping, inlets, skimmers or gutters, or drains are installed in phases.

- (b) A final inspection shall be conducted when the public swimming pool is complete and ready to be placed in operation.
- (2) Project completion letter. Upon completion of the final plan verification construction inspection the director shall issue a letter to the licensor notifying them that the plan approval process is complete and that the project is ready for licensure (new construction) or operation (substantial alterations or equipment replacements).

3701-31-05.1 **Design criteria for new construction or
substantial alteration of a public swimming pool on or after April 1, 2011.**

- (A) The design requirements set forth by this rule shall apply to any newly constructed, substantially altered public swimming pool, or an existing unlicensed public swimming pool. All plans for new or substantially altered public swimming pools shall be submitted for review in accordance with rule 3701-31-05 of the Administrative Code.
- (B) Safe Design. The shape, dimensional design, and other features of a public swimming pool and the surrounding area shall be designed to ensure that the circulation of water and the safety of the patrons of the pool are not impaired.
- (C) Construction materials. The construction materials for any public swimming pool shall be constructed of materials which are inert, non-toxic to humans, impervious, and capable of withstanding the design stresses.
 - (1) Pool Structure. The public swimming pool structure shall be an impervious water tight tank with cleanable surfaces.
 - (a) Vinyl liners shall not be used as the primary or initial construction material on new public swimming pools to ensure the public swimming pool is impervious.
 - (b) The interior surfaces of public swimming pools shall be painted white unless the color is approved by the director.
 - (i) Lane lines shall not exceed twelve inches wide unless painted in accordance with the applicable competitive standard.
 - (ii) Logos applied to the bottom of a public swimming pool must be submitted to the director for approval prior to their application on the public swimming pool surface.
 - (2) Piping. All piping shall be rigid PVC meeting ASTM F441/F441M-99 or equivalent and replacement pipe shall be of equal or greater size.
- (D) Approved Water Supply. The water supply to a public swimming pool shall meet the applicable drinking water quality standards of Chapter 3745-81 or Chapter 3701-28 of the Administrative Code.
- (E) Cross-connection control. The water supply system of a public swimming pool shall be protected against cross-connection in accordance with Chapter 3745-95 and Section 608 of the Ohio Plumbing Code, rule 4101:3-6-01 of the Administrative Code.

- (1) Pool drainage. The discharge of any water from a public swimming pool shall be in accordance with the requirements of the Ohio environmental protection agency.
 - (a) The licensee shall have on site the equipment necessary for complete removal of the water from a public spa.
 - (2) Backwash and drainage sumps. An adequately sized floor sump or oversized drainage standpipe shall be provided with an air gap to receive back wash and public swimming pool drainage flow. The sump or standpipe shall discharge to a sanitary sewer unless otherwise approved by the Ohio environmental protection agency. Cartridge filters are not required to drain into a sanitary sewer but if they do an air gap is required.
 - (3) Standing water. Floor areas shall be designed to provide drainage to a floor drain or a sump to avoid any possible drainage into open filters or pump pits and to prevent the accumulation of any standing water in the vicinity of electrical equipment and other areas.
 - (4) Condensate. Condensate water from dehumidifiers, air conditioning, or other air handling equipment shall not be added to public swimming pool water.
- (F) Circulation system and components. Each public swimming pool shall have a circulation system as defined in paragraph (C) of rule 3701-31-01 of the Administrative Code and other necessary equipment that the director or the licenser, as applicable depending upon whether licensure or plan approval is at issue, determines can clarify and disinfect the water of the public swimming pool adequately.
- (1) Turnover rates. The circulation system for a public swimming pool shall be designed to operate continuously. Water in a public swimming pool shall be circulated and filtered completely in accordance with the following turnover rates, as applicable, or as allowed by the licenser for existing public swimming pools:
 - (a) For public swimming pools at least once every eight hours.
 - (b) For wading pools at least once every two hours.
 - (c) For spas at least once every thirty minutes.
 - (d) Turnover rates for special use pools shall be as follows:
 - (i) For spray grounds the circulation turnover rate within the mixing holding tank shall be no more than thirty minutes.
 - (ii) For special use pools of twenty-four inches or less in average depth, the turnover rate shall be at least every two hours.

- (iii) For special use pools between twenty-four and thirty-six inches in depth, the turnover rate shall be at least every three hours.
 - (iv) For special use pools of more than thirty-six inches average depth, the turnover rate shall be at least every four hours. When less than twenty per cent of a public swimming pool's surface area is devoted to special feature use, the turnover rate shall be at least every five hours
 - (e) When reviewing the plans the director may require a shorter turnover rate than the applicable rate prescribed in paragraph (F)(1) of this rule.
- (2) Flow measuring devices. A means of determining rate-of-flow shall be properly installed and maintained on all public swimming pools, special features and jet pumps so that the rate of flow can be accurately determined and easily observed. One of the following methods to measure flow shall be used:
- (a) A flow meter; or
 - (b) A pump curve specific for the pump and impellor. The pump curve shall be conspicuously posted in the filter room and shall be marked up to display the formula or means for calculating the gauge readings into the total dynamic head (TDH) and the flow in gallons per minute (gpm).
 - (i) A functional compound gauge shall be installed on the suction side of the pump, at or near the hair and lint strainer. A functional pressure gauge shall be installed on the pressure side of a pump, at or near the impellor housing;
- (3) Throttle valves. Throttle valves may be installed to control the circulation turnover rate in paragraph (F)(1) of this rule and/or the design flow for special feature pumps. The throttle valve shall be tagged to denote the maximum and minimum allowable flow.
- (4) Pumps. Pumps shall be installed to operate according to the intended design of the public swimming pool or special feature.
- (a) All replacement components shall be installed in accordance with the manufacturer's specifications.
 - (b) A circulation pump shall be capable of providing one hundred ten per cent of the minimum required flow in paragraph (F)(1) of this rule.
 - (c) A hair and lint strainer shall be provided for all circulation pumps, except for vacuum diatomaceous earth (DE) filters.

- (5) Filters. Filters shall be installed to operate according to the intended design of the public swimming pool and at one hundred ten per cent of the required turnover rates in paragraph (F)(1) of this rule.
- (a) A pressure or vacuum gauge or gauges, appropriate to the type of filter, shall be provided.
- (6) Disinfection and chemical reagent feeders. Disinfection feeders shall provide the minimum disinfection required in rule (D)(6) of rule 3701-31-04 of the Administrative Code. pH feeders shall be able to maintain the pH level of the water as required in paragraph (C)(2) of rule 3701-31-04 of the Administrative Code
- (7) Automatic chemical controllers. Automatic chemical controllers shall comply with the requirements in paragraph (D)(7) of rule 3701-31-04 of the Administrative Code. All installations of automatic chemical controllers shall be accompanied with the installation of pH adjustment equipment.
- (8) Return inlets. All public swimming pools shall have return inlets that are adequate in design, number and location to ensure effective distribution of treated water and maintenance of uniform disinfectant residual throughout the public swimming pool.
- (9) Overflow systems. All public swimming pools shall have a functional overflow system to skim the surface of the water to remove floating debris. The overflow system shall include adequate surge capacity to maintain the water level of the public swimming pool. Modulation valves or equivalent shall be installed on all surge capacity tanks. Any alteration to an overflow system is considered a substantial alteration and shall be submitted for plan review. All public swimming pools shall have one of the following overflow systems as appropriate to the design of the public swimming pool:
- (a) A gutter system that shall extend completely around the perimeter of the public swimming pool and be designed for continuous removal of water from the public swimming pool's upper surface at a rate of not less than one hundred per cent of the circulation flow. The gutter system shall include the following components:
- (i) Outlets;
- (ii) Drop boxes, or converters as appropriate; and
- (iii) Return piping designed to handle one hundred per cent of the circulation rate without back up into the public swimming pool.
- (b) A skimmer system which shall be limited to public swimming pools with widths of fifty feet or less at the narrowest point, except that bottom

inlets shall be installed in public swimming pools with widths between forty and fifty feet.

- (i) At least one skimmer shall be provided for every five hundred square feet of surface area or fraction thereof. The skimmers shall be equipped with control valves and located so as to provide effective skimming of the entire water surface.

(10) Outlets. All main drain/suction outlets shall have boxes/sumps compliant with ANSI/ASME A112.19.8-2007. Outlets shall be one of the following:

(a) Gravity flow: or

(b) Direct suction. All public swimming pools, spa jets, water slides, and water attractions designed for direct suction shall have:

(i) At least two outlets, or

(ii) An unblockable outlet.

(11) Outlet covers. All outlet systems shall have outlet covers that meet ANSI/ASME A112.19.8-2007.

(a) All field fabricated outlet boxes/sumps and covers shall be certified by a professional engineer registered in Ohio that they are in compliance with ANSI/ASME A112.19.8-2007.

(b) Unblockable outlet cover that is greater than eighteen inches by twenty-three inches.

(c) Each outlet cover shall have the capacity to handle one hundred percent of the circulation flow as listed for compliance with ANSI/ASME A112.19.8-2007.

(d) Suction piping shall be designed to pull equally from an outlet box/sump.

(e) The adjacent edges of outlet covers shall be a minimum of three feet apart.

(f) Outlet covers in any public swimming pool twenty-four inches in depth or less shall be a minimum of twelve inches by twelve inches in size.

(g) At least one outlet shall be located in the deepest area of a public swimming pool. For spa circulation systems at least one outlet shall be installed on the floor.

(h) Skimmer equalizer line outlets or other suction outlets, such as pool vacuum lines shall be fitted with compliant covers.

- (i) All outlet covers shall be installed in such a way that they cannot be removed without tools.

(12) Equipment labels. All equipment shall be used in the manner intended by the manufacturer. The manufacturer and model number for all equipment shall either be on the equipment label or on documentation on file. The following equipment shall have legible and conspicuous labels or other documentation on file:

- (a) In addition to the manufacturer and model number all filters shall have the following information:

- (i) The filter area size in square feet;

- (ii) The filtration rate per the listing agency in gpm/sf;

- (iii) The maximum allowable filter flow in gpm; and

- (iv) Custom built vacuum diatomaceous earth filters shall provide the date of construction/installation.

- (b) If a model number is not on a circulation, jet, fountain, slide or other pump, a serial number or other identification may be used to distinguish each unit;

- (c) The chemical feed rate shall also be provided;

- (d) Automatic chemical controllers;

- (e) All skimmers, filters and disinfectant feeders shall be approved and listed by National Sanitation Foundation (NSF) or another organization that approves equipment used for public swimming pools;

- (f) Outlet covers. The required information may be kept on file; and

- (g) Slides and other special features.

(13) Restricted access. All such equipment shall be enclosed in such a manner as to be accessible only to authorized persons and not to bathers.

(G) Water Depths. The depths of all public swimming pools shall be as follows:

- (1) Public swimming pool. From the effective date of this rule, the minimum depth of a public swimming pool shall not be less than thirty-six inches (except for wading pools, zero depth entry areas and ramps less than six feet wide).

(2) Spa. The maximum water depth shall be four feet.

(3) Wading pool. The maximum water depth shall be twenty-four inches.

(H) Depth markers, deck warnings and signs. Depth markers, deck warnings, and other signs shall be installed as follows:

(1) Depth Markers/deck warnings.

(a) The depth of water at a public swimming pool shall be marked at:

(i) Maximum and minimum points; and

(ii) The points of break between the deep and shallow portions of a public swimming pool and at intermediate points.

(b) Special use pools with zero depth entrances shall have the entrance marked "Zero Depth", 0 Feet or 0 Inches.

(c) "No diving" signs are required every twenty-five feet along the perimeter at shallow areas of public swimming pools.

(i) An equivalent pictorial sign or tile may be provided.

(ii) "No diving" signs are not required at wading pools, spas or spray grounds.

(d) Deck markers shall not be spaced more than twenty-five feet apart as measured along the perimeter wall of a public swimming pool and shall be placed:

(i) On top of the deck; and

(ii) Within two feet of the water's edge or within six inches of the back of the gutter;

(e) Depth markers shall reflect the water depth to the nearest six inch or one-half foot increment.

(f) Depth marking numerals shall be plainly marked, at least four inches in size and of a color that contrasts with the background.

(g) The units of measure to denote the water depth shall be spelled out in feet and inches and may be abbreviated as: Ft or In.

(i) If tiles are used, the unit of measure may be in smaller letters (one and one quarter inches minimum) located in the upper right portion of the tile.

- (h) All deck markings shall have slip resistant surfaces.
 - (i) A minimum of two depth markings per public spa, wading pool or zero entry pool shall be provided;
- (I) Pool walls and floors. The walls and floors of public swimming pools and special use pools shall comply with the following requirements:
- (1) Pool sidewall slope. The walls of a public swimming pool shall not slope more than one horizontal to five vertical (eleven degrees from vertical) for at least three feet below the water level, below which the walls may either curve to the bottom with a radius not greater than the difference between the depth at that point and three feet, or be sloped.
 - (a) For public swimming pools less than six feet deep, the walls shall slope no more than two horizontal to five vertical (twenty-two degrees from vertical).
 - (2) Floor slope. The floor in the shallow end of all public swimming pools shall not slope more than ten horizontal to one vertical.
 - (a) For wading pools and zero depth entry areas, the floor shall not slope more than twelve horizontal to one vertical.
- (J) Ingress/egress at new or altered pools. Newly constructed or substantially altered public swimming pools shall have a means of ingress and egress as follows:
- (1) Recessed steps, ladders or stairs all with handrails at the following locations:
 - (a) At the shallow and deep ends of the public swimming pool; and
 - (b) On both sides of the public swimming pool when the public swimming pool is greater than thirty feet wide and every seventy-five linear feet.
 - (2) Alternate entry. Zero depth entry may be provided as alternate entry;
 - (3) Hand rail placement. The edge of hand rails shall extend over the water to within eighteen inches of the vertical plane of the bottom step's riser;
 - (4) Stairs. Stairs shall be uniform in design, as follows:
 - (a) Risers shall be not more than twelve inches;
 - (b) Treads shall be greater than or equal to eleven inches; and
 - (c) Tread widths shall be greater than or equal to twenty-four inches.

(5) Ramps. Ramps or any other means of ingress or egress furnished in public swimming pools shall be accessible to physically handicapped or disabled individuals and shall comply with public law 101-336, 28 CFR parts 35 and 36, known as the Americans with Disabilities Act of 1990, as amended. Any access ramp shall enter into the shallow end of a public swimming pool.

(K) Diving areas. The following requirements apply to all public swimming pools with diving areas and equipment or to existing public swimming pools when substantial alterations are made to the diving area.

(1) Competition diving hoppers and diving equipment. Diving areas and equipment shall comply with the requirements in this rule and with the design standards of the "Federation Internationale de Natation Amateur," the "National Collegiate Athletic Association," the "United States Diving Incorporated" or for high schools, the "National Federation of State High School Associations." The design standards may be obtained by contacting the organizations listed in Appendix A of this rule.

(a) All diving stands, boards shall be of substantial construction and of sufficient structural strength to safely carry the maximum anticipated loads with the following requirements:

(i) Steps shall be of corrosion-resistant materials, easily cleanable and of non-slip design. Step treads shall be self-draining.

(ii) Handrails/side rails shall be provided at all steps and ladders leading to diving boards more than one meter above the water.

(iii) Platforms and diving boards which are one meter high or higher shall be protected with hand rails/side rails as recommended by the manufacturer which, at a minimum, extend horizontally to the edge of the water.

(iv) Equipment shall be installed per manufacturer specifications.

(L) Starting platforms/blocks. Starting blocks shall be appropriately designed for their intended purpose.

(1) Water depth. The water depth shall be at least five feet at a point one foot from the end wall to at least four feet at a point five inches from the end wall.

(M) Decks. The decks for all public swimming pools shall be as follows:

(1) Construction. Decking shall have surfaces that are easily cleanable, non-abrasive but slip-resistant, impervious, not subject to microbial growth or deterioration and do not present a hazard to public health or safety.

- (a) Carpet and wood are not acceptable materials.
 - (b) All decks shall be constructed in accordance with Chapters 3781. and 3791. of the Revised Code and the rules of the board of building standards.
- (2) Deck Width. The minimum widths of the decks shall be as follows:
- (a) The required deck width for outdoor public swimming pools shall be at least five feet.
 - (b) The required deck width for indoor public swimming pools shall be at least three feet.
 - (c) There are no minimum deck width requirements for public spas.
- (3) Edges/coping. The poolside edge of public swimming decks shall be rounded to prevent injury to patrons.
- (a) Concrete or brick decks shall be rounded to a minimum of a one-eighth inch radius.
 - (b) Public swimming pools without gutters shall provide a safety handhold for bathers.
- (4) Access. Decking shall be installed around the perimeter of a public swimming pool to allow foot traffic and emergency access without any obstructions, as follows:
- (a) No less than fifty per cent of the public swimming pool's perimeter.
 - (b) No more than twelve consecutive feet in length of the public swimming pool's perimeter shall be inaccessible by a deck of at least two feet in length that also has access away from the pool.
 - (c) Diving equipment and special feature stairways shall have at least three feet of deck.
- (5) Drainage. Decks shall be constructed to provide drainage from the deck and to prevent any standing water. Decks or surrounding areas of a public swimming pool shall not drain into the public swimming pool or its circulation system.
- (6) Deck warning signs/depth markers. Required deck warning signs, depth markers and other signs shall be in accordance with paragraph (H) of this rule.

(N) Safety line. A safety line with intermittent floats is required, as follows:

- (1) The line shall be anchored to the interior wall of the public swimming pool except as provided in paragraph (E)(2)(c) of rule 3701-31-04 of the Administrative Code.
- (2) The safety line shall be located one foot toward the shallow portion of a public swimming pool from the break in slope. If the design of the public swimming pool prevents this then the line shall be located at the break in slope.
- (3) A safety line is not required at public swimming pools with a water depth of five feet or less, spas, wading pools, applicable special use pools and where there is not a break in the floor slope between the shallow and deep portions of the pool.

(O) Perimeter Barriers and components. The licensee shall provide a perimeter fence or permanent structural barrier to enclose a public swimming pool, or complex of public swimming pools. The perimeter barrier shall be located in such a manner as to prevent unauthorized access to the public swimming pool or complex of public swimming pools.

- (1) Barrier height. The perimeter barrier shall be at least forty-eight inches in height from the ground to the top of the fence.
- (2) Self latching, closing and lockable. All gates or doors in the perimeter barrier shall be lockable, and any gates or doors that are used for ingress or egress to the public swimming pool by patrons shall be self-closing and self-latching.
 - (a) The actuating device for the latching mechanism shall be at least thirty-eight inches above the ground.
- (3) Unclimbable barrier. The perimeter barrier shall be constructed without horizontal members on the exterior side that would make the perimeter barrier easy to climb.
 - (a) "Horizontal "stringers" or members used to strengthen the perimeter barrier shall be at least forty-two inches in height from the ground.
- (4) Barrier gaps. In no event shall a perimeter barrier be constructed to allow a space equal to or exceeding four inches regardless of the materials used, the manner of installation or the amount of deflection within the components.
- (5) Electronic detection. Electronic detection or monitoring devices shall not be used in place of the required perimeter barrier.

(6) Wading pool barriers and components. The licensee of a wading pool shall provide a barrier around the perimeter of the wading pool. The barrier shall have a minimum height of thirty-six inches to completely enclose and separate the wading pool from any public swimming pool that is not a wading pool.

(a) All gates or doors in this barrier shall be self-closing and self-latching.

(b) The barrier shall be constructed on the inside without horizontal members that would make it easy to climb.

(P) Toilet and bathhouse facilities. The licensee of a public swimming pool shall provide toilet and bathhouse facilities in accordance with Chapters 3781. and 3791. of the Revised Code and the rules of the board of building standards.

(Q) Equipment, chemical and storage areas. The equipment, chemical and storage areas of a public swimming pool shall be designed as follows:

(1) Restricted access. All pumps, filters and other mechanical and electrical equipment, and the storage areas for chemicals for public swimming pools shall be located in such a manner as to be accessible only to authorized persons and not to bathers;

(2) Adequate space. Adequate floor space shall be provided to ensure ease of access and maintenance to each piece of equipment and stored chemicals;

(3) Lighting. Lighting intensity shall be a minimum of twenty foot candles on the surface of equipment, controls and switches; and

(4) Protective barriers. An effective barrier at least thirty-six inches high from the floor or a cover shall protect all open filters or pits.

(R) Adequate ventilation. All enclosed public swimming pools, equipment rooms and chemical storage areas shall be ventilated in accordance with Chapters 3781. and 3791. of the Revised Code and the rules of the board of building standards.

(1) Direct drafts. Direct air drafts on swimmers shall be avoided;

(2) Condensation. Condensation shall be minimal and in no case shall it cause damage to building materials.

(3) Licensed HVAC contractors. All proposed heating, ventilating, and air conditioning (HVAC) work performed at public swimming pools shall be done by licensed HVAC contractors in accordance with Chapters 3781. and 3791. of the Revised Code and the rules of the board of building standards.

- (4) Certificate of occupancy. Copies of the certificate of occupancy, issued by a local certified building department or by the department of commerce, division of industrial compliance and labor, demonstrating that all required inspections and approvals were obtained, shall be maintained on file at the public swimming pool office for review by the licensor.
- (5) Documentation that a problem does not exist. When, in the opinion of the licensor, a ventilation problem appears to exist within a structure, the licensor may require written verification from one of the following that a problem does not exist:
- (a) A local certified building department;
 - (b) A professional engineer; or
 - (c) A licensed HVAC contractor. "Licensed HVAC contractor" means an individual licensed under Section 4740.06 of the Revised Code.
- (S) Electrical. All electrical wiring at a public swimming pool and the surrounding area shall be installed in accordance with Chapters 3781. and 3791. of the Revised Code and the rules of the board of building standards.
- (1) Licensed electrical contractors. All electrical work proposed at public swimming pools shall be done by licensed electrical contractors in accordance with Chapters 3781. and 3791. of the Revised Code and the rules of the board of building standards.
 - (2) Compliance/Certificate of occupancy. Copies of the certificate of occupancy, issued by a local certified building department or by the department of commerce division of industrial compliance and labor demonstrating that all required inspections and approvals for the electrical work were obtained, shall be maintained on file at the public swimming pool office for review by the licensor.
 - (3) Documentation that a hazard does not exist. When, in the opinion of the licensor, an electrical hazard may exist, the licensor may contact the local building authority to have a certified electrical safety inspector provide written verification that that a hazard does not exist. "Licensed electrical contractor" means an individual licensed under Section 4740.06 of the Revised Code.
- (T) Pool area/underwater lighting. Sufficient natural or artificial lighting shall be provided to illuminate the required deck area and the bottom of all public swimming pools when in use.
- (1) Wading pools and spas. When wading pools and spas are used at night, the licensee shall provide adequate area lighting. No underwater lighting is required.

(U) Special features. Special features at all public swimming pools shall be installed and Special features disinfected as follows:

- (1) Equipment shall be installed per manufacturer specifications or as prescribed by these rules.
- (2) Special features intended for full exposure to water shall be designed in such a manner that all water flowing from the special feature is disinfected prior to return to the attraction. Disinfection may be accomplished by either all water flow going through the main circulation pump and disinfection system prior to the special feature, or all water flow to the water attraction going through a separate pump and disinfection system with an automatic chemical controller provided on the main public swimming pool circulation system.

(V) Slides. All slides at a public swimming pool shall be installed in the following manner as applicable:

(1) Required water depths for slides:

- (a) Kiddee slides shall only be installed in wading pools.
- (b) Playground slides shall only be installed in the shallow areas of a public swimming pool.
- (c) Recreational slides may be installed to enter into various depths of water as per manufacturer's specifications.
- (d) The depth of water beneath a water slide that enters the public swimming pool within two inches of the water level shall not exceed forty-eight inches.
- (e) The depth of water beneath a water slide that terminates more than two inches above the water level shall not be less than sixty inches.
- (f) A speed slide shall be designed for high velocity that will terminate in a straight run out for deceleration and exit as per manufacturer's specifications.

(2) The following requirements apply to all slides:

- (a) All slides, except those attached to play features, shall have visually designated splash down areas.
- (b) All slides shall have a ladder or steps within the area for egress.

- (c) Handrails shall be provided at slides more than one meter above the deck level.
- (d) Platforms more than one meter above the water level shall be protected with side barriers at least forty-eight inches high. Pickets or spindles shall offer a gap less than four inches.
- (e) All water slides shall have a switch easily accessible to immediately shut-down the slide pump.

(W) Signs. Warning signs that are required in accordance with paragraph (E)(3) in rule 3701-31-04 of the Administrative Code.

(X) Construction Tolerances. The following construction tolerances are permitted for the dimensional design measurements of a newly constructed or installed public swimming pool or the portion of a public swimming pool that has been substantially altered, as set forth on the approved plans and as required by the applicable provisions of this chapter:

- (1) Overall length, width and depth in the deep end may vary plus or minus three inches;
- (2) Wall slopes of public swimming pools may vary a maximum of one degree;
- (3) Diving hopper depths may vary zero to plus three inches. All other hopper dimensions may vary minus two inches to plus three inches.
- (4) All dimensions pertaining to steps shall vary no more than plus or minus one inch.
- (5) All other dimensions may vary plus or minus two inches.

(Y) The following design requirements shall apply to spray grounds:

- (1) Spray ground basic components. A spray ground consists of fountains, sprays, jets or other special features that drain onto a spray pad. In addition to the spray feature pumps a circulation system shall be provided consisting of one or more drain outlets, a mixing-holding tank, except as in paragraph (Y)(2)(a) of this rule, disinfection equipment, piping, and other necessary equipment that the director determines can clarify and disinfect the water adequately.
- (2) Dependent spray grounds. A spray ground shall operate separately from any other public swimming pool or aquatic attraction, except as follows:
 - (a) As part of a public swimming pool circulation system provided the supply water to the spray ground is from the circulation system of a licensed public swimming pool or from the public swimming pool itself. Discharge

water from the spray features shall only be returned to the public swimming pool filtration system for treatment.

(i) A holding tank may be used as follows:

- (a) To supply water to the spray features (to avoid "draw down" provided it does not receive any raw water discharge from the spray pad;
- (b) To maintain the required disinfection residuals;
- (c) To adequately circulate the water to prevent "dead spots" that may lead to the proliferation of pathogens; and
- (d) There shall be an access cover for cleaning and for collecting samples, as may be required.

(3) Independent spray grounds. Spray grounds that operate independently from a public swimming pool shall have a mixing-holding tank, as follows:

- (a) The mixing-holding tank capacity shall be at least five times the combined design flow (gpm) of the spray features to address draw-down and to provide adequate circulation within the tank;
- (b) The mixing holding tank shall be designed and installed as one chamber;
- (c) Alterations or additional spray features shall be approved by the director;
- (d) The circulation turnover rate within the mixing-holding tank shall be no more than thirty minutes;
- (e) A "trash trap" or similar method shall be provided to remove surface debris between the spray pad outlet and the mixing-holding tank;
- (f) Discharge water from the spray pad shall drain to a mixing-holding tank;
- (g) The mixing-holding tank shall have one inlet for every fifteen feet of tank perimeter, but not less than two inlets, to prevent circulation "dead spots" and the growth of bacteria or other pathogens within the tank;
 - (i) Discharge water into the mixing-holding tank shall be on the opposite side from the treated water returned to the tank;
- (h) The treated water from the filtration-disinfection system shall be returned to the mixing-holding tank on the opposite side from the untreated water and not more than six inches from the tank floor, to increase circulation within the tank;

- (i) The spray features supply intake line shall be located as close as possible to the treated return water inlet from the filter where it enters the mixing tank, and not more than six inches from the tank floor to increase circulation within the tank;
 - (j) There shall be at least one access panel to allow service, cleaning and inspection of the entire tank, piping, fixtures and any equipment inside the mixing-holding tank and for collecting samples as may be required; and
 - (k) There shall be an outlet in the bottom of the mixing tank to completely drain and clean the tank at least once every one hundred twenty days;
 - (i) An automatic water level controller may be installed on the mixing tank to control the water level provided the appropriate cross-connection/back flow prevention control devices are installed.
- (4) Separate circulation-spray features operations. The circulation (treatment) system and the special features system shall be separate systems.
- (a) The spray ground circulation system shall operate continuously twenty-four hours a day during all parts of the year the spray ground is in use;
 - (b) The special features system(s) shall not operate if the circulation system is not operating.
- (5) Spray ground disinfection and water quality. A spray ground shall have a disinfection system and an automatic chemical controller to monitor and adjust water quality, according to paragraphs (D)(2) and (D)(7) of rule 3701-31-04 of the Administrative Code. The disinfection feeder shall provide the minimum disinfection required in rule (D)(6) of rule 3701-31-04 of the Administrative Code.
- (6) Spray pad design. The spray pad represents the spray zone for the special features and collects water to be directed to an outlet as follows:
- (a) The spray pad shall slope to an outlet with no accumulated standing water above the level of the outlet. The maximum floor to pad slope will be less than one inch per foot;
 - (b) The spray pad surface shall be slip resistant with no obstructions that can create a trip or safety hazard; and
 - (c) Outlets shall be flat or installed to prevent a trip hazard.
- (7) Spray ground special features and fountains. The special features and fountains at spray grounds shall be designed as follows:

- (a) Special features for a spray ground shall be limited to fountains or similar attractions;
 - (b) When the special features are not operating water shall automatically drain from the spray pad;
 - (c) Special feature fountains shall either be flush with the spray pad surface or high enough to be seen to prevent slip, trip or fall hazards; and
 - (d) Spray feature inlets/nozzles shall be designed and maintained free of safety hazards.
- (8) Walkways/deck. Each spray ground will have a slip resistant walkway at least five feet in width around the perimeter of the attraction.
- (a) Walkways shall slope away from the spray pad with a slope not to exceed one quarter inch per foot. For indoor attractions the walkway shall drain to waste with an indirect connection to the sanitary sewer per the Ohio building code.
- (9) Warning signs. Within one year from the effective date of this chapter all spray grounds shall post the following warning sign using the same or similar language:
- DO NOT USE POOL WHEN YOU HAVE DIARRHEA
 - WATER IS NOT MEANT FOR DRINKING
 - WASH HANDS AFTER USING THE REST ROOM OR CHANGING DIAPERS
 - TAKE REGULAR REST ROOM BREAKS, CHANGE DIAPERS ONLY IN A REST ROOM
- (a) Safety recommendations, as provided by the manufacturer or designer, shall be posted conspicuously.

APPENDIX A- Competition Swimming Organizations

Swimming Pool Design Standards

Current swimming pool design and rule publications may be obtained by contacting the following organizations:

Avenue de l'Avant-Poste 4
CH - 1005 Lausanne
SWITZERLAND
Tel: (+41-21) 310 47 10
Fax: (+41-21) 312 66 10
Design:
<http://www.fina.org>

For FINA standards also contact:
USA Swimming
One Olympic Plaza
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National Collegiate Athletic Association
700 W. Washington Street
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United States Diving, Incorporated
201 S. Capitol Avenue, Suite 430
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Phone: 317-237-5252
Fax: 317-237-5257
URL: www.usdiving.org

National Federation of State High School Associations
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