

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 licensor, 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 licensor 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
Colorado Springs, Colo. 80909
Phone: 719-866-4578

National Collegiate Athletic Association
700 W. Washington Street
P.O. Box 6222
Indianapolis, Indiana 46206-6222
Phone: 317-917-6222
Fax: 317-917-6888
URL: www.ncaa.org

United States Diving, Incorporated
201 S. Capitol Avenue, Suite 430
Indianapolis, IN 46225
Phone: 317-237-5252
Fax: 317-237-5257
URL: www.usdiving.org

National Federation of State High School Associations
P.O. Box 690
Indianapolis, IN 46206
Phone: 317-972-6900
Fax: 317-822-5700
URL: www.nfhs.org