HO-CHUNK NATION CODE (HCC)
TITLE 3 – HEALTH AND SAFETY CODE
SECTION 8 – POOL ORDINANCE

ENACTED BY THE LEGISLATURE: 11-04-08

This Ordinance Supersedes Section 3.6.10 of the Environmental and Public Health Ordinance (3 HCC § 6)

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CHAPTER I
GENERAL

1. **Authority**.

a. Article IV, Section 2 of the Constitution authorizes the legislative branch to make laws and appropriate funds in accordance with Article V.

b. Article V, Section 2(a) of the Constitution grants the Legislature the power to make laws, including codes, ordinances, resolutions, and statutes.

c. Article V, Section 2(h) of the Constitution grants the Legislature the power to enact all laws prohibiting and regulating conduct, and imposing penalties upon all persons within the jurisdiction of the Nation.

d. Article V, Section 2(i) of the Constitution grants the Legislature the power to negotiate and enter into treaties, compacts, contracts, and agreements with other governments, organizations, or individuals.

e. Article V, Section 2(o) of the Constitution grants the Legislature the power to enact laws to regulate and zone any lands within the jurisdiction of the Ho-Chunk Nation.

f. Article V, Section 2(l) of the Constitution grants the Legislature the power to enact laws to manage, lease, permit, or otherwise deal with the Nation's lands, interests in lands or other assets.

g. Article V, Section 2(s) of the Constitution grants the Legislature the power to promote public health, education, charity, and such other services as may contribute to the social advancement of the members of the Ho-Chunk Nation.

h. Article V, Section 2(x) of the Constitution grants the Legislature the power to enact other laws, ordinances, resolutions, and statutes necessary to exercise its legislative powers delegated by the General Council pursuant to Article III, including but not limited to the foregoing list of powers.

2. **Sovereign Immunity**.

a. Nothing in this Code shall be deemed to waive the sovereign immunity of the Ho-Chunk Nation or any of its enterprises, officers, agents, or employees.

b. Pursuant to Article XII, Sections 1 and 2 of the Constitution, the Legislature in taking any action will be deemed to not have waived the Nation’s sovereign immunity from suit, unless the Legislature expressly waives the Nation’s sovereign immunity.

3. **Enforcement, Amendments, and Construction**.

a. Enforcement.

(1) It shall be the sole responsibility of the Ho-Chunk Nation Department of Labor to enforce Chapter II and to use Chapter IV of this *Pool Ordinance* (3 HCC § 8) for additional information in the enforcement of Chapter II.

(2) It shall be the sole responsibility of the Ho-Chunk Nation Environmental and Public Health Division of the Department of Health and Social Services to enforce Chapter III of this *Pool Ordinance* (3 HCC § 8).

b. Amendments.

(1) It shall be the responsibility of the Ho-Chunk Nation Department of Labor to bring forward any proposed Amendments to Chapter II and Chapter IV of this *Pool Ordinance* (3 HCC § 8) to the Legislature for its consideration upon a determination that an Amendment is necessary to either Chapter II or Chapter IV.

(2) It shall be the responsibility of the Ho-Chunk Nation Environmental and Public Health Division of the Department of Health & Social Services to bring forward any proposed Amendments to Chapter III of this *Pool Ordinance* (3 HCC § 8) to the Legislature for its consideration upon a determination that an Amendment is necessary to Chapter III.

(3) Neither Section 3, subparagraph b. (1) or (2) shall limit the ability of any individual or entity from proposing Amendments to this *Pool Ordinance* (3 HCC § 8).

(4) All Amendments shall be considered pursuant to the requirements of the Ho-Chunk Nation *Legislative Organization Act* (2 HCC § 11).

c. Severability Clause. If any part of this *Pool Ordinance* (3 HCC § 8) is for any reason held to be unconstitutional or invalid by a court of competent jurisdiction, such decision shall not affect the remainder of this law. The Ho-Chunk Nation Legislature hereby declares the provisions of this *Pool Ordinance* (3 HCC § 8) to be severable.

CHAPTER II
DESIGN AND CONSTRUCTION OF PUBLIC SWIMMING POOLS AND WATER ATTRACTIONS

SUBCHAPTER I — ADMINISTRATION

4. **Scope**.

a. Promulgation. This chapter is promulgated to regulate the design and construction, alteration or reconstruction of public swimming pools, including whirlpools and water attractions, and the alteration of public swimming pool equipment in order to protect the health and safety of the public.

b. Enforcement. Any person who violates this chapter or any plan or specification included as part of an approval that is issued under this chapter shall be fined not less than twenty-five dollars ($25) nor more than two-hundred and fifty dollars ($250) for each violation. Each day of continued violation is a separate offense.

5. **Applicability**. This chapter consists of minimum requirements that apply to the design and construction of all new public swimming pools, water attractions and associated slides; and to the reconstruction or alteration of any existing public swimming pool, water attractions and associated slides.

6. **Definitions**. In this chapter:

a. "Accessible" means easily and readily exposed for inspection and the replacement of materials or parts with the use of tools.

b. "Approved" means acceptable to the department based on its determination of conformance with this chapter and good public health practices.

c. "Bed and breakfast establishment" means any place of lodging that:

(1) Provides eight (8) or fewer rooms for rent to no more than a total of twenty (20) tourists or transients;

(2) Provides no meals other than breakfast and provides the breakfast only to renters of the place;

(3) Is the owner's personal residence;

(4) Is occupied by the owner at the time of rental;

(5) Was originally built and occupied as a single-family residence or, prior to use as a place of lodging, was converted to use and occupied as a single-family residence; and

(6) Has had completed, before May 11, 1990, any structural additions to the dimensions of the original structure, including by renovation.

d. "Breakpoint" means the line of separation between the shallow portion and the deep portion of a pool, defined by a sharp change in the slope of the bottom.

e. "Children's slide" means a slide which has a maximum height of four (4) feet or 1.2 m as measured vertically from the slide entrance to the slide terminus and located in twenty-four (24) inches or 61 cm of water or less.

f. "Deck" means the unobstructed walking surface immediately adjacent to the pool.

g. "Deep portion" means the deep side of the breakpoint or that portion of a pool having a design water depth greater than five (5) feet or 1.52 m.

h. "Department" means the Ho-Chunk Nation Department of Labor.

i. "Drop slide" means a slide where the terminus is located twenty (20) inches or 50.8 cm or more above the water level.

j. "Flume" means that part of a slide within which sliding takes place.

k. "Interactive play attraction" means a water attraction, including but not limited to manufactured devices using sprayed, jetted or other water sources contacting the users and not incorporating standing or captured water as part of the user activity area.
Splash pads and spray pads are examples of interactive play attractions.

l. "Mobile pool base" means the location where a mobile pool is stored or serviced and where a source of potable water and a plumbing drainage system are available.

m. "NSF" means the National Sanitation Foundation.

n. "Open swim" means allowing persons, other than those residing in living units, to use the pool or water attraction.

o. "Owner" or "operator" means a municipality, corporation, company, association, firm, partnership or individual owning, controlling or operating any public swimming pool.

p. "Patron" means a user of the pool.

q. "Play feature" means a physical object installed in a pool or water attraction that is intended for recreational use.

r. "Pool" means a fixed or mobile structure, basin, chamber or tank and appurtenant buildings and equipment that serve or are installed for use by the state, a political subdivision of the state, a motel, a hotel, a resort, a camp, a club, an association, a housing development, a school, a religious, charitable or youth organization, an educative or rehabilitative facility or another entity. "Public swimming pool" does not mean a fixed or mobile structure, basin, chamber or tank that only serves fewer than three (3) individual residences." For purposes of the preceding sentence a housing development may mean either an apartment complex, condominium complex or housing complex having a 'homeowners' association. Types of pools are as follows:

(1) “Amenity pool” means any pool feature with a minimum square foot water surface of one-hundred (100) square foot and a maximum square foot water surface of eight-hundred and fifty (850) square foot. These pools shall only be used in conjunction with a “Tourist Rooming House” operation for “patron(s)” use of “private room guest(s)” only and not accessible by the general public and/or not accessible to an “open swim,” unless life guards or attendants are present during the “open swim” time periods.

(2) "Combination pool" means a pool used for swimming and diving.

(3) "Diving pool" means a pool used exclusively for diving.

(4) "Exercise pool" means a pool of shallow depth usually associated with a health spa and which may or may not have a current.

(5) "Limited purpose pool" means a pool used for a purpose not otherwise defined, such as for apparatus swimming, underwater photography training or another special use by the public.

(6) "Mobile pool" means a pool constructed on a mobile structure which is capable of being transported from place to place.

(7) "Therapy pool" means a pool used for medically administered therapy.

(8) "Wading pool" means a shallow pool having a maximum depth of twenty-four (24) inches or 61 cm and intended for children's play. An example of a wading pool is a zero-depth entry wading pool.

(9) "Whirlpool" means a relatively small pool which uses high temperature water and which may include a water agitation system. A whirlpool may also be referred to as a spa.

(10) "Zero-depth entry pool" means a water attraction having a sloped entrance to where the water depth is zero inches at the shallowest point.

s. "Pool slide" means a slide where the drop from the slide terminus to water is less than twenty (20) inches or 50.8 cm and the flume carries less than one-hundred (100) gpm of water.

t. "Private guest room" means a room or rooms that provide sleeping accommodation offered for pay to tourists or transients.

u. "Public swimming pool" means a fixed or mobile structure, basin chamber or tank and appurtenant buildings and equipment that serve or are installed for use by the state, a political subdivision of the state, a motel, a hotel, a resort, a camp, a club, an association, a housing development, a school, a religious, charitable or youth organization, an educative or rehabilitative facility or another entity. "Public swimming pool" does not mean a fixed or mobile structure, basin, chamber or tank that only serves fewer than three (3) individual residences.

v. "Recirculation system" means the outlets, inlets, equipment and piping of pools and water attractions designed to circulate water at a predetermined quantity and velocity in order to treat and purify the water. Backwash piping is not part of the recirculation system.

w. "Reconstructed or altered pool" means a pool that requires replacement of or modification to the pool shell, recirculation system and appurtenances so that the pool may continue to be operated free from health or safety hazards. It does not include the replacement of equipment or piping previously approved by the department, provided that the type and size of equipment are not changed, nor does it include normal maintenance or repair.

(1) The following is a listing of when the department may waive submittal of pool plans and fees for the reconstruction and alteration of existing pools.

(a) A disinfection system equipped with a positive displacement pump is replaced by an approved pass−through (erosion) type system or visa versa, the replacement of a gas chlorine system with a positive displacement pump or approved pass−though feeder.

(b) A recirculation pump is replaced by another pump from a different manufacturer provided that the capacity of the new pump is at least equal to the pump which is replaced.

(c) A filter is replaced with an approved filter of the same type but with greater filter media surface.

(d) The replacement of metal piping and fittings with the same size PVC piping and fittings.

(e) A supplemental disinfecting system is installed (e.g. Ozone, etc.) provided that the halogen residual is maintained as stated in Table 40-1 and that there is no decrease in the required water recirculation flow rate.

(f) For the installation of a slide six (6) foot or less in height, no slide plan review in accordance with the Ho-Chunk Nation *Occupational Safety and Program Safety Act* (6 HCC § 8) shall be required. Such installations shall meet the guidelines of Subchapter V, Section 26.

(2) The installation of a gas chlorine system will require plan submittal and a fee.

x. "Reverse flow" means a design in which the water enters at or near the pool bottom and leaves at or near the waterline.

y. "Run-out slide" means a waterslide where the rider does not enter into a plunge pool, but has a deceleration area that permits the rider to come to a stop before exiting the slide flume.

z. "Shallow portion" means the shallow side of the breakpoint or that portion of a pool having a design water depth of five (5) feet or 1.52 m or less.

aa. "Skimmer" means a device installed in a pool wall at the water level which is connected to the recirculation piping and is intended to skim debris from the surface of a pool.

bb. "Slip-resistant" means a material that when wet has a coefficient of friction greater than 0.5.

cc. "Splash zone" means the area where water falls on the floor of an interactive play attraction.

dd. "Swimming pool complex" means two (2) or more pools as defined under Section 6, subparagraph r. and located within an enclosure or room.

ee. "Swimout" means an underwater seat area that is placed completely outside the perimeter of the pool.

ff. "Terminus section" means the last ten (10) feet or 3.05 m of a slide flume discharging into a pool.

gg. "Suction outlet" means a discharge port installed in the wall or floor of a pool which connects by way of piping to a pump. A suction outlet does not include a skimmer.

hh. "Tourist rooming house" means any lodging place or tourist cabin or cottage where sleeping accommodations are offered for pay to tourists or transients. "Tourist rooming house" does not include:

(1) A private boarding or rooming house, ordinarily conducted as such, not accommodating tourists or transients.

(2) A hotel.

(3) Bed and breakfast establishments.

ii. "Toxic" means a probable human oral lethal dose of fifteen (15) or less grams of solution per kilogram of body weight.

jj. "Transfer system" means a device or combination of devices that include a platform, steps and other structures or devices to facilitate pool access.

kk. "Turnover time" means the time for a given volume of water to pass through the recirculation system.

ll. "Water attraction" means a public facility with design and operational features that provide patron recreational activity other than conventional swimming and involves partial or total immersion of the body. Types of water attractions are as follows:

(1) "Activity pool" means a water attraction with a depth of greater than twenty-four (24) inches or sixty-one (61) cm designed primarily for play activity that uses constructed features and devices including, but not limited to, pad walks, flotation devices and similar attractions. These devices shall be located within and/or adjacent up to six (6) feet or 1.8288 meters of the Swimming basin. The installation of a basketball hoop or volleyball net does not transform a pool into a water attraction.

(2) "Leisure river" means a stream of near-constant depth in which the water is moved by pumps or other means of propulsion to provide a river-like flow that transports users over a defined path. A leisure river may include play features and devices. A leisure river may also be referred to as a tubing pool or a current channel.

(3) "Plunge pool" means a pool with a depth of greater than twenty-four (24) inches or 61 cm, located at the exit end of a waterslide flume and intended and designed to receive slide users emerging from the flume.

(4) "Vanishing edge pool" means a water attraction in excess of four-hundred and fifty (450) square foot of water surface that has no above-water line wall on one (1) or more sides and no accompanying deck, along this one (1) side.

(5) "Vortex pool" means a circular pool that is equipped with a method of transporting water in the pool for the purpose of propelling users at speeds dictated by the velocity of the moving stream.

(6) "Wave pool" means a water attraction designed to simulate breaking or cyclical waves for the purposes of surfing or general play.

mm. "Water attraction complex" means a facility where water attractions are located within single or multiple enclosures or rooms with any combination of four (4) or more water attractions or public swimming pools.

nn. "Waterslide" means a slide where a water flow of one-hundred (100) gpm or more is intended to carry a rider down a flume.

7. **Plan Review and Approval.** The design for the construction, alteration or reconstruction of a public swimming pool, or a water attraction or an associated slide, shall be submitted to the department for review in accordance with this section:

a. Review. All designs under the scope of this chapter shall be submitted to the department for review and receive approval from the department prior to the start of construction.

(1) Plans and specifications.

(a) At least four (4) sets of plans and one (1) copy of specifications shall be submitted for review. These sets of plans and copies shall be clear, legible and permanently marked.

(b) Plans submitted for review shall be accompanied by sufficient information for the department to determine if the installation and its performance will meet the requirements of this chapter.

(c) Plans and specifications, including adequate supporting design data, shall be prepared by a State registered architect or professional engineer and bear that person's seal, signature and State/locality which they operate.

(d) Structural review of pool slides shall be based on the Ho-Chunk Nation *Occupational Safety and Health Program Act* (6 HCC § 8).

(e) Unless extended by the applicant and the department, the department shall review and make a determination on an application for plan review within fifteen (15) business days.

(2) Revised submittals. All changes or modifications, involving the provisions of this chapter, shall be approved in writing by the department prior to installation.

(3) Revocation of approval. The department may revoke any approval, issued under the provisions of this chapter, for any false statements or misrepresentation of facts on which the approval was based.

(4) Expiration of approval. Plans approved by the department shall expire two (2) years after the date indicated on the approval letter, if construction has not commenced within that two (2) year period.

(5) Limitations. A conditional approval of a plan by the department shall not be construed as an assumption by the department of any responsibility for the design. The department does not hold itself liable for any defects in construction or for any damages that may result from the specific installation.

(6) Fees. Fees for plan review submittals shall be as follows:

(a) Plan examination and inspection fees for public swimming pools, water attractions and associated slides shall accompany plans and specifications when submitted to the department for review. The Department shall use this ordinance as pre-emanate rule for construction purposes in any State that the Nation owns and operates pools, water attractions, and any combination thereof. If the department determines, upon review of the plans, that inadequate fees were received, the necessary additional fees shall be received by the department prior to plan review and determination.

(b) Except as provided in Section 7, subparagraph a. (6) (c), plan examination and inspection fees for the construction or modification of public swimming pools, water attractions and associated slides shall be as listed in Table 7-1.

(c) Alternative fees.

1 Alternate and experimental system design review. Fees for the review and approval of alternate and experimental system designs shall be as specified in Table 7-1 fee for the minor revision to a previously approved alternate or experimental system design may be assessed. The expiration date of the original approval may not be extended if a minor revision is approved.

2 Reinspection fee. A fee of one-hundred and fifty dollars ($150.00) may be assessed for a second (2^{nd}) or subsequent final inspection where the initial final inspection is scheduled and partially conducted by the inspector, and the pool installation is found to be incomplete.

TABLE 7-1
PLAN REVIEW AND INSPECTION FEES FOR PUBLIC SWIMMING POOLS, WATER ATTRACTIONS AND ASSOCIATED SLIDES

	Fee Type		
Pool Type or Water Attraction	Initial Construction	Modification	Revision to Previously Approved Plans
Pool Slide, Drop Slide or Water Slide, functional requirements a, b	$270.00	$120.00	$120.00
Pool Slide, Drop Slide or Water Slide, structural requirements c	$300.00	$120.00	$120.00
Public Swimming Pool, gutter type	$900.00	$500.00	$120.00
Public Swimming Pool, skimmer type	$750.00	$500.00	$120.00
Water Attraction (including interactive play attractions)	$900.00	$500.00	$120.00
Public Whirlpool	$750.00	$500.00	$120.00
Alternate and Experimental Design	$1050.00	$675.00	$150.00

b. Alternate Public Swimming Pool or Public Whirlpool Design Review. The provisions of this chapter are not intended to prevent innovative designs for public swimming pools or whirlpools. The department may issue an approval of an alternate public swimming pool or whirlpool design if the design complies with the intent of this chapter.

(1) Alternate public swimming pool or whirlpool designs. For an alternate public pool or whirlpool design, an approval shall be required before installation on the Nation's lands and use.

(a) Alternate public pool or whirlpool designs submitted for review shall be accompanied by sufficient information for the department to determine if the design and its performance will meet the requirements of this chapter.

(b) The department shall review and make a determination on an application for an alternate public swimming pool or whirlpool submittal within ninety (90) days.

(c) The department may include specific conditions in issuing an approval for an alternate public swimming pool or whirlpool design, including an expiration date for the approval. Violations of the conditions under which an approval is issued shall constitute a violation of this chapter.

(d) If, upon review, the department determines that an alternate public swimming pool or whirlpool design does not comply with the intent of this chapter, the request for approval shall be denied in writing.

(e) If a public pool or whirlpool design receives alternate approval, a plan for the site-specific public swimming pool or whirlpool complying with the alternate design approval shall be submitted in accordance with Section 7.

(2) Revisions. If an approved alternate public swimming pool or whirlpool design is modified or additional assertions of function or performance are made, the approval shall be considered null and void, unless the design is resubmitted to the department for review and approval is granted.

(3) Revocation of approval. The department may revoke an approval issued under this section for any false statements or misrepresentation of facts or data on which the approval was based, or as a result of design failure.

(4) Limitations. An approval issued by the department for an alternate public swimming pool or whirlpool design may not be construed as an assumption of any responsibility for defects in design, construction or performance of any installation or for any damages that may result.

(5) Fees. Fees for the review of an alternate public swimming pool design under this section and any onsite inspections shall be submitted in accordance with the following:

(a) Standard Fees. Unless specified otherwise in this chapter, the fee for department costs incurred in performing miscellaneous plan reviews shall be sixty dollars ($60.00) per hour per plan, with a minimum fee of sixty dollars ($60.00) per plan.

(b) Miscellaneous Inspections and Investigations. Unless specified otherwise in this chapter, fees for department costs incurred in performing miscellaneous inspections or investigations, including special inspections for alterations, fabrication, repairs, testing, electrical construction and quality assurance methods, which are either provided on request or to satisfy administrative code requirements, shall be determined and assessed in accordance with Table 7-2. An additional amount may be charged to cover all expenses, including travel time, mileage, meals and lodging.

TABLE 7-2
MISCELLANEOUS PLAN REVIEWS, INSPECTIONS AND SERVICES

Individual Special Inspections Fee Per Hour Per Inspector	
(a) Inspections performed between the hours of 7:45 a.m. and 4:30 p.m. on weekdays Monday through Friday	$60.00
(b) Inspections performed on Saturdays, Sundays, holidays and at times other than scheduled in (a)	$90.00
(c) For supervising the American Society of Mechanical Engineers (ASME) joint review and audit and for conducting shop audits, Monday through Friday	$90.00

(c) Minimum Charge. In reference to Table 7-2 (a) and (b), a minimum charge of four (4) hours shall be assessed for all special inspections required during fabrication and testing of ASME code items.

(d) Miscellaneous Goods and Services. The department may collect a fee for providing goods and services related to work that has been delegated by the department to authorized agents or other Ho-Chunk Nation agencies based upon actual cost.

(e) Inspection Assessments. The department may inspect any installation which is also inspected by a certified inspector. When the department inspection confirms that the inspection report is incomplete, invalid or unacceptable, the department shall assess the inspector or his or her employer a fee determined in accordance with Section 7, subparagraph b. (5) (b).

c. Experimental Public Swimming Pool or Public Whirlpool Design Review. The provisions of this chapter are not intended to prevent innovative designs for public pools or whirlpools. The department may issue an approval of an experimental public swimming pool or whirlpool design for the purpose of proving compliance with the intent of this chapter.

(1) Experimental public swimming pool or whirlpool designs.

(a) Experimental public swimming pool or whirlpool designs submitted for review shall be accompanied by sufficient information as requested by the department.

(b) The department shall review and make a determination on an application for an experimental public swimming pool or whirlpool submittal within ninety (90) days.

(c) The department may include specific conditions in issuing an approval for an experimental public swimming pool or whirlpool design, including an expiration date for the approval. Violations of the conditions under which an approval is issued shall constitute a violation of this chapter.

(d) If, upon review, the department determines that an experimental public swimming pool or whirlpool design is not acceptable, the request for approval shall be denied in writing

(e) If a public swimming pool or whirlpool design receives experimental approval, a plan for the site-specific public swimming pool or whirlpool complying with the experimental design approval shall be submitted in accordance with Section 7.

(f) The department may limit the number of applications for review of experimental systems.

(2) Revisions. If an approved experimental public swimming pool or whirlpool design is modified or additional assertions of function or performance are made, the approval shall be considered null and void, unless the design is resubmitted to the department for review and approval is granted.

(3) Revocation of approval. The department may revoke an approval issued under this section for any false statements or misrepresentation of facts or data on which the approval was based, or as a result of design failure.

(4) Limitations. An approval issued by the department for an experimental public swimming pool or whirlpool design may not be construed as an assumption of any responsibility for defects in design, construction or performance of any installation or for any damages that may result.

(5) Fees.

(a) Fees for the review of an experimental public swimming pool design under this section and any onsite inspections shall be submitted in accordance with Table 7-2.

(b) Plans and specifications are to be submitted to the Ho-Chunk Nation Environmental and Public Health Division of the Department of Health & Social Services, P.O. Box 667, Black River Falls, WI 54615.

d. Details. The plans and specifications shall include all of the following:

(1) General. The following information shall be included on the plans or in a separate report:

(a) The name and address of the Ho-Chunk Nation's Operation where the pool is being constructed.

(b) The location of the facility by street address or, if none is available, by quarter-quarter section, section, town, range, township and county.

(c) If the location is Trust Land, Reservation Trust Land, and/ or Tribal Fee Land.

(2) Site. Site information including, but not limited to, location of all wells and utilities, topography and natural water features.

(3) Plot plan.

(a) A general map and detailed scaled drawings showing the site plan or floor plan of pertinent portions of the pool or water attraction structure, pool or water attraction orientation, including the location of all slides, interactive play attractions and play features. The designed pool water elevation shall be shown on the detailed drawing.

(b) All water supply facilities, sources of drinking water, public or private sewers and relative elevations of paved or other walkways and the equipment room floor.

(c) When public water and sewer systems are proposed to serve the public swimming pool, the elevations of storm and sanitary sewer inverts and street grade.

(4) Construction plans. Detailed scaled and dimensional drawings for each individual pool which shall include at least the following:

(a) A layout plan showing longitudinal and transverse cross-sections of the basin. Include location and type of inlets, overflows, pool drains, vacuum fittings, deck drains, drinking fountains or sources of drinking water, piping, hosebibbs, fences, telephones, design of deck, curb or walls enclosing the pool, paved walkways, overflow gutters or devices, ladders, stairs, diving boards, slides and underwater lights.

(b) A flow diagram showing the location, plan, elevation and isometrics of filters, pumps, chemical feeders, heaters, surge tanks including operating levels, backflow preventers, valves, piping, flow meters, gauges, thermometers, test cocks, sight glasses and the drainage system for the disposal of pool and filter wastewater.

(c) The plan drawings for all available sanitary facilities and any bathhouse facilities provided including dressing rooms, lockers and basket storage, showers and all other

plumbing fixtures.

(d) The specifications for all pool equipment, floor construction and lighting equipment.

(e) The design information used to determine the surface area and volume of the pool or water attraction.

(5) Specifications. Complete technical specifications for the construction of the pool and all appurtenances to accompany the drawings under Section 7, subparagraph d. (4), including at least the following:

(a) All construction details not shown on the plans.

(b) Detailed requirements for the type, size, operating characteristics and rating of all mechanical and electrical equipment.

(c) Detailed information about plumbing fixtures and piping, when applicable.

(d) The sources of all water supplies.

(e) Filter media such as diatomaceous earth, sand, gravel or other approved material.

(f) Any other information necessary to determine compliance with this chapter.

e. Construction Supervision and Certification.

(1) Supervision.

(a) For the purposes of this paragraph, "supervision" means the performance of an architect's or engineer's service of reasonable on-site observation to determine that the completed construction is in substantial compliance with approved plans and specifications, but does not include the supervision of construction by a contractor.

(b) Every public swimming pool shall be constructed under the supervision of a State registered architect or professional engineer in the state or locality which the pool resides. The architect or engineer shall be responsible for the facility being in substantial conformance with the plans and specifications approved by the department.

(c) Before the start of construction, the owner or that person's authorized agent shall designate to the department in writing the name and registration number of the supervising architect or engineer.

(d) This supervision is a professional service, as distinguished from supervision

of construction by a contractor. No change in plans or specifications which involves any provision of this chapter may be made unless the change is signed, sealed and dated by the architect or engineer under whose supervision the change was made and approved by the department.

(2) Certification. On completion of the construction, the supervising architect or engineer shall file a written statement with the department on the form the department provides at the time of approval, certifying that, to the best of his or her knowledge and belief, construction has been performed in substantial compliance with the plans and specifications approved by the department.

f. Construction Inspection. Every new installation or modification constructed under the authority of this chapter shall be inspected as required in this subsection.

(1) The construction or modification of any public swimming pool or water attraction shall be inspected by an authorized representative of the department. Authorized representatives of the Ho-Chunk Nation Ho-Chunk Nation Environmental and Public Health Division of the Department of Health & Social Services can be reached at the Tribal Office Building via mail at P.O. Box 667 Black River Falls, WI 54615, or by phone at 1-800-255-9466.

(2) A rough-in inspection shall be conducted when the piping system is roughed-in and before concrete is poured.

(a) When the installation is ready for inspection, the registered architect, professional engineer or pool contractor constructing or modifying any swimming pool shall make a telephone request for inspection with the representative of the department.

(b) Except as provided under Section 7, subparagraph f. (2) (c), work may not proceed beyond the point of inspection, as described under Section 7, subparagraph f. (2) (c), until the inspection has been completed.

(c) If the inspection is not made by the end of the normal business day following the day of notification, not including Saturday, Sunday or legal holidays, the installation work may proceed. For purposes of the proceeding sentence “legal holidays” shall be as defined in the *Employment Relations Act* (6 HCC § 5) or any subsequently enacted employment law of the Nation.

(3) A final inspection shall be made when the construction or modification is complete. Inspections shall be made only available during standard business hours.
A final inspection includes, but is not limited to, sanitary facilities, pools, fences and decks.

(a) The registered architect, professional engineer or pool contractor constructing or modifying any swimming pool shall make a request for the final inspection.

(b) A telephone request for the final inspection shall be made at least twenty-four

(24) hours prior to the requested time for the inspection.

1 The registered architect or professional engineer responsible for the supervision of the construction or modification of any public swimming pool shall provide the necessary equipment and personnel required for the inspection as requested by the authorized representative of the department.

2 If the authorized representative of the department finds that the work or installation does not comply with this Ordinance, necessary corrections shall be made to achieve compliance. The authorized representative of the department shall be notified for re-inspection when the corrections are completed.

d. Authorized Inspection Agent.

(1) Upon request from a governmental unit, the department may delegate to the governmental unit, the responsibility to conduct construction inspections of any public swimming pool or water attraction in accordance with this section.

(2) The delegation of inspection authority by the department shall be contingent upon a request by the governmental unit demonstrating sufficient capabilities to complete the construction inspections.

(3) The department shall provide the governmental unit with a written decision of authorization or denial relative to the request under this section concerning construction inspection.

(4) The department shall include as part of governmental unit audits conducted, an evaluation of the construction inspection functions that are authorized to the governmental unit under this section.

(5) When a governmental unit wishes to discontinue the authorized construction inspection function under this section, written notification shall be made to the department at least thirty (30) days prior to the discontinuance.

(6) The authorization to conduct construction inspections may be revoked by the department after providing the governmental unit with justification.

SUBCHAPTER II — PUBLIC SWIMMING POOLS

8. **Location and structural stability of a pool**.

a. Location. Each public swimming pool shall be located at a site conducive to good operation, maintenance, safety and freedom from contamination. The site shall have suitable drainage and be separate from sources of harmful environmental factors. Swimming pools may not be located in the regional floodplain of a river, stream or flow-through lake. For areas

bounding a landlocked lake, the highest historic water level shall be used.

b. General Structural Stability. All pools shall be designed to be structurally sound and shall be constructed of suitable and durable materials which are inert, nontoxic to humans and watertight. All structural material as well as all equipment used in the operation of pools shall be subject to approval by the department. In reviewing materials and equipment for approval, the department may use the national sanitation foundation (NSF) standards and lists of approved equipment.

c. Stress Relief. Provision shall be made for the relief of stresses which may occur as a result of unbalanced hydrostatic pressures and to protect the pool structures from stresses which may develop due to freezing.

d. Metal Pools. All metal pools shall be protected against corrosion by galvanic action or aggressive water by provision of appropriate grounding devices, bonding, insulation or sacrificial rods or other units.

9. **Water Supply for a Pool**.

a. General. The water supplied to a public swimming pool shall be from a potable water source approved by the Ho-Chunk Nation department of natural resources and shall comply with the Ho-Chunk Nation *Water Utility Ordinance* (3 HCC § 7).

b. Cross-Connection Control.

(1) All portions of the water distribution system serving the pool and all auxiliary facilities shall be protected against backflow. Water introduced into the pool, either directly or to the recirculation system, shall be supplied through a minimum air-gap equal to two (2) pipe diameters or six (6) inches, whichever is less, or by another method approved by the department.

(2) The use of a toxic solution, such as but not limited to heat transfer fluid in a single-wall heat exchanger for pool water, is prohibited.

10. **Permissible patron load.**

a. Combination, Swimming-only or Exercise Pools. The number of people permitted to be in the water of a swimming-only, combination or exercise pool at any one time shall be computed on the basis of allowing fifteen (15) square feet or 1.4 square meters per patron for the shallow portion of the pool and twenty-five (25) square feet or 2.3 square meters per patron for the deep portion of the pool. Three hundred (300) square feet or 27.9 square meters of pool water surface around each diving board and diving platform shall be excluded in computing the permissible patron load. An additional ten (10) patrons for each diving board shall be included in the computation.

b. Wading Pool. The permissible patron load for wading pools shall be computed by

allowing fifteen (15) square feet or 1.4 square meters per patron. See Section 22, subparagraph d. (4) for the permissible patron load for whirlpools.

c. The permissible patron load shall be posted in a conspicuous location for viewing by all patrons.

11. **Pool basin**.

a. Depths. Water depth at the end wall in the shallow portion of a combination, limited purpose, exercise or swimming-only pool shall be between thirty (30) inches or seventy-six (76) cm and forty-two (42) inches or 106.7 cm unless a variance in depth is approved by the department. Water depth in the diving well of a combination pool or in a diving pool shall comply with the profiles in Figure 11-1 and the dimensions in Table 11-1. Water depth at the breakpoint in a combination pool shall be between 4.5 feet or 1.37 m and 5.5 feet or 1.68 m. An amenity pool shall be not less than two feet (2') (metric conversion) and not to exceed a depth of five feet (5 ') (metric conversion) in depth without a breakpoint.

b. Bottom Slope.

(1) The bottom slope in the shallow portion of a combination pool shall be constant, may not be greater than one (1.0) inch per foot or 2.54 cm/30.48 cm and shall slope to the main drain. The bottom slope of the deep portion of a combination pool or diving pool shall comply with the profiles in Figure 11-1 and the dimensions in Table 11-1 and shall slope to the main drain.

(2) The bottom slope in a limited purpose, exercise, amenity or swimming-only pool shall be constant, may not be greater than one (1.0) inch per foot or 2.54 cm/30.48 cm and shall slope to the main drain, except that the department may allow a change in the bottom slope provided that the change is to a shallower slope but not less than 0.25 inch per foot.

c. Boundary Line. The boundary line between the shallow and deep portions of a combination pool shall be marked with a four (4) inch wide stripe of contrasting color on the floor and walls of the pool.

d. Safety Rope. A safety rope with floats shall stretch over the water surface from one (1) side of the pool to the opposite side at the breakpoint or at a depth between 4.5 feet or 1.37 m and 5.5 feet or 1.68 m, except that the rope may be temporarily removed during supervised special purpose use.

e. Vertical Wall and Floor Juncture. Walls in the shallow portion of a diving, combination, limited purpose, exercise or swimming pool shall be vertical. Between each wall and the floor there shall be a curved junction having a radius of between one (1) inch or 2.54 cm and three (3) inches or 7.62 cm.

f. Head Room. There shall be a completely unobstructed vertical distance of sixteen (16) feet or 4.88 m above any diving board measured from the center of the front end of the board. This area shall extend horizontally at least eight (8) feet or 2.44 m behind, eight (8) feet or 2.44 m to each side of, and sixteen (16) feet or 4.88 m ahead of the measuring point located sixteen (16) feet or 4.88 m above the board.

g. Safety Ledge. When included, a safety ledge shall be at a constant depth of thirty (30) inches or 0.76 m to sixty (60) inches or 1.52 m and shall be six (6) inches or 15.24 cm in width, with a downward slope of 1/2 inch or 1.27 cm from the wall. All corners shall be rounded.

FIGURE 11-1
PLAN AND PROFILE
SWIMMING POOL AND DIVING BOARD INSTALLATION

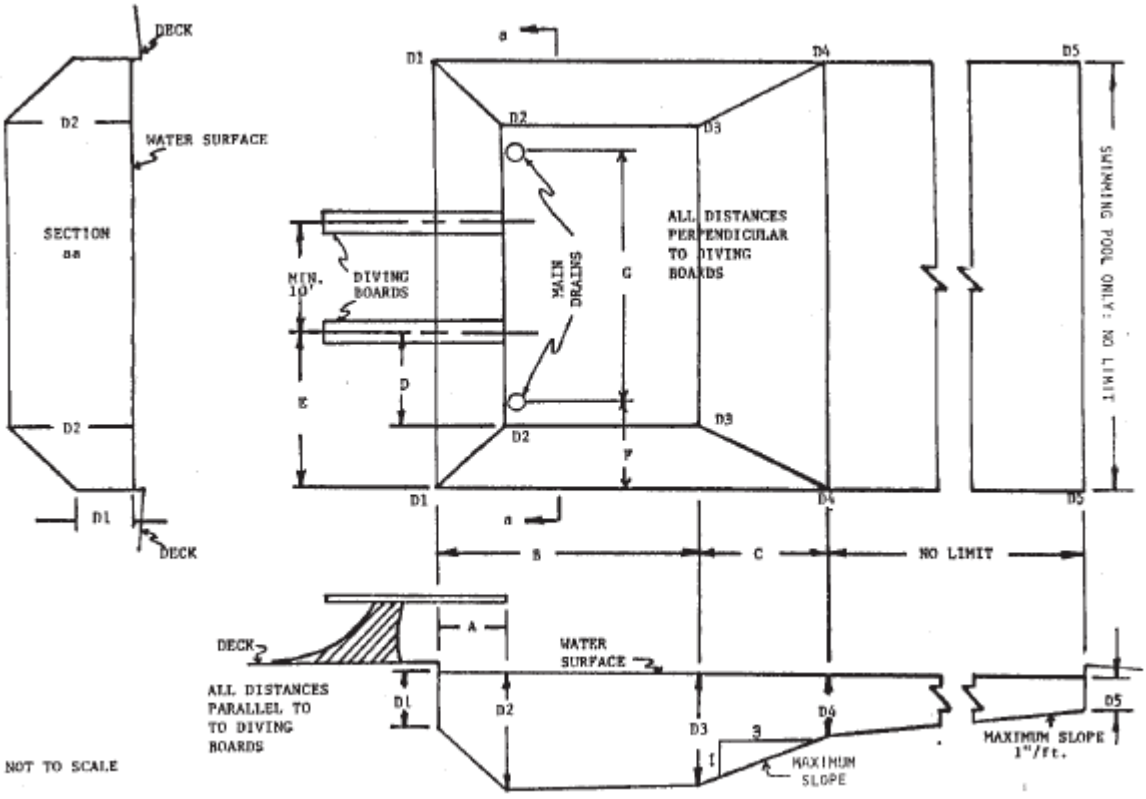


TABLE 11-1
POOL DIMENSIONS RELATED TO FIGURE 11-1

TYPE OF SWIMMING POOL INSTALLATION		DEPTHS					LENGTHS						
		** D–1	D–2	D–3	D–4	D–5	A	B	C	D	E	F	G
SWIMMING POOL ONLY	MIN.	*	X	X	X	2'6"	X	X	X	X	X	*	*
	MAX.	*	X	X	X	3'6"	X	X	X	X	X	10'0"	20'0"
WITH 26" (2/3 METER) DIVING BOARD	MIN.	5'0"	9'0"	8'6"	4'6"	2'6"	2'6"	18'0"	10'0"	5'0"	10'0"	*	*
	MAX.	D–2	*	D–2	5'6"	3'6"	3'0"	*	*	*	*	10'0"	20'0"
WITH 30" (3/4 METER) DIVING BOARD	MIN.	5'0"	10'0"	9'6"	4'6"	2'6"	3'0"	20'0"	12'0"	5'0"	10'0"	*	*
	MAX.	D–2	*	D–2	5'6"	3'6"	4'0"	*	*	*	*	10'0"	20'0"
WITH ONE METER DIVING BOARD	MIN.	5'0"	11'0"	10'6"	4'6"	2'6"	4'0"	20'0"	15'0"	8'0"	10'0"	*	*
	MAX.	D–2	*	D–2	5'6"	3'6"	5'0"	*	*	*	*	10'0"	20'0"
WITH THREE METER DIVING BOARD	MIN.	5'0"	12'0"	11'6"	4'6"	2'6"	5'0"	22'0"	18'0"	10'0"	15'0"	*	*
	MAX.	D–2	*	D–2	5'6"	3'6"	6'0"	*	*	*	*	10'0"	20'0"

* When a maximum or a minimum dimension is not indicated, there is no limiting dimension.
** D−1 shall be at the end wall or not more than 6 inches from the wall.
X These measurements are not applicable to pools for swimming only.

h. Pool Shape.

(1) Contour and obstructions.

(a) A swimming pool shall have a shape that does not impair the circulation of pool water and swimmers' safety. Except for a safety ledge, a safety rope, a ladder or access side rails, and those obstructions listed in Section 11, subparagraph h. (1) (b), there shall be no underwater or overhead projections or obstructions that might endanger patron safety or interfere with proper pool operation.

(b) Pool basin obstructions, including roof support columns, shall be no more than two (2) feet in diameter, of a contrasting color, protrude at least five (5) feet above the pool bottom and no less than three (3) feet above the water level.

(2) Bench area.

(a) When a bench area is provided to permit bathers to be seated in the water, it shall be in a recessed area to eliminate any protrusion beyond the pool wall.

(b) The height of the bench may not exceed eighteen (18) inches or 0.5 m; the width of the bench seat may not exceed eighteen (18) inches or 0.5 m; the depth of the water above the bench seat may not exceed two (2) feet or 61 cm.

(c) The surface of the bench seat shall be of a color in distinct contrast to the color of the surrounding pool basin or shall have a two (2) inch or 5.1 cm leading edge of

contrasting color.

(d) The words "bench below" shall be placed on the deck at the edge of the pool at the bench area in a contrasting color in distinct contrast to the deck background and at least located at ten (10) foot or 3.05-m intervals.

i. Diving Equipment. Supports, platforms, steps, and ladders for diving equipment shall be of sufficient structural strength to safely carry the anticipated loads. Steps and ladders shall be of corrosion-resistant material, easily cleanable, and with treads of slip-resistant design. Handrails shall be provided at all steps and ladders leading to diving boards more than one (1) meter above the water. Platforms and diving equipment that are one (1) meter or higher shall be protected with guard rails. One (1) meter diving equipment guard rails shall be at least thirty (30) inches or seventy-five (75) cm above the diving board and extend to the edge of the pool wall. All platforms and diving equipment higher than one (1) meter shall have guard rails which are at least thirty-six (36) inches or ninety (90) cm above the diving board and extend to the edge of the pool wall.

j. Ladders, Recessed Treads, Recessed Stairs and Handrails.

(1) General. At least two (2) points of egress shall be provided from any swimming, diving, limited purpose, exercise, combination or plunge pool. The maximum separation between points of egress, measured along the pool's perimeter, shall be seventy-five (75) feet or 22.86 m.

(2) Ladders. At least one (1) ladder, recessed or protruding, shall be placed in the deep portion of the pool and one (1) at or near the end wall of the shallow portion. Ladders shall be made of corrosion-resistant material and treads shall have slip-resistant surfaces. There shall be a clearance of not more than six (6) inches or fifteen (15) cm nor less than three (3) inches or 7.6 cm between any ladder and the pool wall.

(3) Recessed treads. The vertical rise between treads recessed in a pool wall shall be uniform and may not exceed ten (10) inches or twenty-five (25) cm measured at the centerline of the treads. The maximum rise between the pool edge and the uppermost recessed tread shall be ten (10) inches or 25 cm. Recessed treads shall have a minimum toe-to-heel depth of five (5) inches or 13 cm and a minimum width of twelve (12) inches or 30 cm. The treads shall have slip-resistant surfaces and shall drain back into the pool.

(4) Recessed stairs.

(a) Recessed stairs may be substituted for ladders only at or near the shallow end wall. Recessed stairs shall not extend into the pool basin except that the department may permit stairs to be located in a corner.

(b) Cantilevered coping of one (1) inch or less at the top of the stair at deck level shall not be considered an obstruction or hazard to patrons.

(c) Stairs shall have a uniform rise of not more than ten (10) inches and uniform treads of not less than ten (10) inches. Treads shall have a minimum unobstructed surface area of two-hundred forty (240) square inches. All corners shall be rounded to a radius of 1/2 inch. Treads may not project beyond the face of the riser and shall have a slip-resistant surface.

(5) Handrails. Handrails extending from below the water surface to the deck, curb or coping shall be provided on each side of ladders and recessed treads, except that grab rails may be substituted for handrails where recessed treads or recessed vertical ladders are provided. Recessed stairs shall have a handrail on each side with a maximum separation of eight (8) feet or 2.44 m measured at deck level. Stair handrails shall be securely anchored and shall be installed in such a way that they may only be removed with tools. The leading edge of deck mounted handrails shall be located within three (3) inches or 7.62 cm, horizontally measured, from the vertical plane of the bottom riser. See Section 22, subparagraph e. (4) for whirlpool handrail requirements.

k. Elevated Deck Stairway, Handrails and Guardrails.

(1) Stairway. The stairway providing access to an elevated deck and the required handrails shall comply with the current Uniform Building Code.

(2) Guardrails. Guardrails shall be securely mounted at all open sides of an elevated pool and deck if it is more than twelve (12) inches or 30 cm in height. Guardrail construction and installation shall comply with the current Uniform Building Code.

l. Access Ramps.

(1) Deck access ramp. Where a ramp is used as an access to an elevated deck, the ramp shall be designed and constructed as required for a barrier-free environment under the Americans with Disability Act standards.

(2) Pool access ramp. Where a ramp is used to gain access into a swimming pool, the ramp shall:

(a) Have a minimum width of thirty-six (36) inches or 0.914 m measured between handrails;

(b) Be no greater than one (1) foot of rise in ten (10) feet of run;

(c) Have at least five (5) feet or 1.52 m of level clearance at the bottom end;

(d) Have a slip-resistant surface of the same material used for the pool bottom; and

(e) Have handrails installed on both sides.

1 The open side or sides of a ramp shall have a handrail with an intermediate parallel guardrail located at mid-height between the handrail and the ramp surface. The handrail shall be between thirty (30) inches and thirty-four (34) inches or 76 cm and 86 cm above the ramp surface and shall be securely anchored in the deck and in the bottom of the pool.

2 Guidelines for pool designers are available from the National Center for Accessibility, Guidelines on Swimming Pool Accessibility, September 1996 (publication number QA95007001). Phone 1-800-424-1877.

m. Wall and Bottom Finish. The finish for the walls and bottom of the pool shall be made of materials that are inert, reasonably durable, nontoxic to humans and do not produce taste or odor in the water. The finish shall be reasonably smooth, easily cleaned and white or light in color. Wood is not acceptable as an interior surface.

n. Depth Markings. Depth markers shall be located along the pool perimeter on the edge of the deck and on the vertical pool wall at or above the water surface at all pools, except at wading pools or on the vertical walls of whirlpools and pools where no vertical wall is exposed above the waterline. The depth of water shall be plainly marked at maximum and minimum points, at points of change in slope and at equal intermediate intervals of twenty-five (25) feet or less. Depth marker numerals on the edge of the deck shall be at least six (6) inches high. Markers on the vertical wall shall be at least three (3) inches high. All markers shall be of a color contrasting with the background.

12. **Pool deck and deck equipment**.

a. Area.

(1) General.

(a) Except for Section 12, subparagraph a. (1) (b) & (c), there shall be an unobstructed deck at the same level as the top of the pool wall. The deck shall extend completely around the pool. There shall be at least six (6) feet of unobstructed deck between any two (2) adjacent pools except that the minimum deck width between a wading pool and any other pool shall be twelve (12) feet and except where a whirlpool/spa and/or an amenity pool meets another where there shall be no minimum deck width required. Deck equipment permitted under this chapter is not considered an obstruction.

(b) Deck obstructions, including roof support columns, shall be no greater than two (2) feet in diameter and of a contrasting color so as to provide adequate clearance, safety, visibility and access.

(c) Where a whirlpool/spa and/or an amenity pool meet both must have three (3) sides accessible for exit and each inaccessible side must be no more than 2/3^{rds} the length of the longest accessible side. Where these two (2) features meet there shall be no more than two (2) levels.

(2) Combination, diving, swimming-only, exercise and wading pools. When the permissible patron load is two-hundred (200) or less, the deck around a combination, diving, swimming-only, exercise or wading pool shall have a minimum width of six (6) feet or 1.8 m. An additional foot or 0.3 m shall be added to the deck width for each additional two-hundred (200) patrons or fraction thereof. The department may vary the deck width requirement for exercise pools under certain conditions of usage.

(3) Limited purpose pools. Except when the conditions stated in Section 12, subparagraph a. (5) (b) apply, the deck for limited purpose pools shall have a minimum width of six (6) feet or 1.8 m on at least two (2) contiguous sides. The point of entry into the pool shall be on one (1) of those sides. The deck on the other two (2) contiguous sides shall be a minimum of three (3) feet or 0.9 m wide. See Section 22, subparagraph f. for whirlpool deck widths.

(4) Deck width near diving equipment. A minimum deck width of four (4) feet or 1.2 m shall be provided on the sides and at the back of any piece of diving equipment.

(5) Accessibility.

(a) All pools shall be easily accessible by emergency medical rescuers or other rescue personnel and equipment to effectively treat, load and transport victims.

(b) Swimmers shall enter the enclosed area around a combination, swimming-only, or exercise pool at a point where the deck is adjacent to the shallow portion of the pool unless the pool deck width at the entrance is at least ten (10) feet or 3.1 meters. This requirement does not preclude provision of emergency exits at other locations. The deck width at the point of access to the pool from a bathhouse or dressing room shall be at least fifteen (15) feet or 4.6 meters. Area, routing and drainage separation shall be provided between the areas used by patrons and those used by spectators.

b. Drainage.

(1) General. Decks shall be sloped to effectively drain either to perimeter areas or to deck drains. Openings in deck drains and channel grates shall be 1/2-inch or 1.27 cm or less in width or diameter. Decks shall be sloped between 1/8-inch or 0.31 cm and 1/2-inch or 1.27 cm per foot or 30.5 cm.

(2) Outdoor pools.

(a) The decks of outdoor pools shall slope away from the pool to the ground surface or to deck drains. Deck drains shall discharge either to the storm sewer with a positive air-gap connection, to the storm sewer so as to provide equivalent protection as determined by the department, or to the ground surface at a point where the water will not create a hazard or nuisance and with a positive air-gap connection if subject to inundation.

(b) See Chapter IV, Section 63, subparagraph a.

(3) Indoor pools. Deck drains shall be provided for indoor pools and shall discharge to a sanitary sewer through a positive air-gap. Deck drains need not be trapped or vented. The department may allow the deck to drain to a pool gutter provided a valved bypass pipe is installed to allow the gutter to discharge directly to a sanitary sewer through a positive air-gap.

c. Surface. The deck surface shall have a slip-resistant texture causing no discomfort to bare feet. Deck surfacing may include concrete, tile or other impervious manufactured surfacing. If other manufactured surfacing is to be used, a sample of the material, the specifications, the installation procedures to be followed and the manufacturer's trade name shall be submitted to the department. Only materials approved by the department may be used. No carpeting or wood or similar non-impervious material may be installed within the deck area.

d. Drinking Water.

(1) Except as provided under Section 12, subparagraph d. (2), one (1) or more drinking fountains installed in accordance with the Ho-Chunk Nation *Water Utility Ordinance* (3 HCC § 7) shall be provided in the immediate pool area.

(2) For a bed and breakfast establishment, tourist rooming house, or private guest room, a source of potable drinking water supplied by a fixture plumbed and drained according to the Ho-Chunk Nation *Water Utility Ordinance* (3 HCC § 7) or commercially bottled drinking water shall be provided within the pool enclosure or the establishment.

13. **Outdoor pool enclosure**.

a. Except as provided in Section 13, subparagraph b., an enclosure at least five (5) feet high constructed to make access difficult shall completely surround every outdoor pool and its adjacent deck area. Access shall be through self-closing and latching gates at the shallow end of the pool. Any opening except a controlled access may not exceed 3 1/2 inches in width or diameter. The enclosure shall be designed, where a bathhouse is provided, so that patron access to the pool shall be through the bathhouse. Controlled openings for maintenance purposes are permitted if they can be locked.

b. A plunge pool or a wave-generating pool does not require a separate enclosure if, along with other water attraction facilities, it is enclosed in an area under the control of an operator providing safety and supervision measures as required in Section 32.

14. **Recirculation system for a pool.**

a. General. Each pool shall have a separate recirculation system except that the department may approve the use of a common surge tank. When a room housing the filtration equipment and pool water heater is provided, it shall be well lighted, well ventilated, well drained, and easily accessible for operation and maintenance of equipment. Provision for

complete drainage of the recirculation system shall be made. Any connection to a storm sewer or a sanitary sewer shall be through a positive air-gap. All materials covered under ANSI/NSF 50 shall conform to ANSI/NSF 50 or an equivalent standard. An installation where the backwash is discharged through a manifold system is not considered to be the interconnection of recirculation systems.

b. Overflow Systems. Overflow gutters or skimmers shall be provided on all pools and shall be designed and installed to provide continuous skimming.

c. Gutters.

(1) Extent. Gutters shall extend completely around the pool except at recessed steps, ladders or ramps. A water attraction may be exempt from the continuous gutter requirement with the approval of the department.

(2) Slope and drains. The gutter lip shall be level within a tolerance of plus or minus 1/8 of an inch or 0.31 cm. Gutter bottoms may be flat or sloping. At least one (1) gutter drain shall be provided for each fifteen (15) feet or 4.6 m of gutter or fraction thereof. Gutter drains shall be located not more than fifteen (15) feet or 4.6 m apart.

(3) Size and shape. The interior width of the gutter may not be less than three (3) inches or 7.6 cm. The gutter and its means of drainage shall be capable of continuously removing at least one-hundred and twenty-five percent (125%) of the recirculation rate when the water level is at the lip of the gutter. Gutters shall be designed to serve as a handgrip and to prevent entrapment of arms or legs.

(4) Outlet fittings and pipe. The gutter outlets shall be connected with pipes having a diameter of at least two (2) inches or 5 cm. The net area of the opening in the grating of outlet fittings shall be at least 1.5 times the area of the outlet pipe.

(5) Surge tank. All overflow gutters shall be connected to the recirculation system through a surge tank having an effective capacity of at least one (1) gallon per square foot of pool water surface except that the department may permit usage of the gutter to satisfy surge capacity requirements when the gutter's hydraulic design is shown to provide the required pool water flow rate without surcharging. Gutter drain piping may not be included in calculating surge storage capacity. If an overflow pipe is provided, it shall be of adequate capacity to convey excess water to the storm sewer.

(6) Roll-out type pool. Roll-out or rim flow type pools with the water level at the deck edge and having a gutter with integral surge capacity shall be designed to meet the safety and hydraulic provisions in this section and subsection that apply to gutter-type pools. The design of the curb and handgrip shall conform to accepted standards of construction and shall be evaluated by the department in relation to the proposed use of the pool.

d. Skimmers.

(1) General. Skimmers of a type approved by the department may be installed on a pool in lieu of gutters, but only on a pool that has a water surface area no greater than three thousand and five-hundred (3,500) square feet or three-hundred and twenty-five (325) m^2 unless it is a reverse flow pool in which case it may have a water surface area up to five thousand (5,000) square feet or 464.5 m^2. The minimum skimmer operating level shall be no more than nine (9) inches or 23 cm below the level of the deck.

(2) Number, location and quality. Where skimmers are used, at least one (1) skimmer, built into the pool wall, shall be provided for each four-hundred (400) square feet or 37.2 m^2 of water surface or fraction thereof for outdoor pools, for each five-hundred (500) square feet or 46.5 m^2 of water surface or fraction thereof for indoor pools except whirlpools and for each one-hundred (100) square feet or 9.3 m^2 of water surface or fraction thereof for whirlpools. Skimmers shall be sturdy and shall be constructed of corrosion-resistant materials. The skimmer basket and flow control shall be easily accessible. The access cover shall be securely fastened. Skimmers shall be located to provide constant and effective skimming over the entire surface of the pool.

(3) Flow-through rate. Skimmers shall be designed for a flow-through rate of at least thirty (30) gallons per minute and shall develop sufficient water surface velocity through the skimmer mouth to cause floating material to flow into the skimmer system. The combined capacity of all skimmers in a pool shall be equal to or greater than the total required recirculation rate.

(4) Weir adjustment and control. A skimmer weir shall adjust automatically and shall operate freely and continuously with variations of at least four (4) inches in water level. All skimmers shall be provided with individual flow controls. All skimmed water shall pass through an easily removable and cleanable basket or screen before encountering control valves and entering the pump suction.

(5) Air-lock prevention. If a skimmer is connected directly to the recirculation pump suction pipe, the skimmer system shall include a device to prevent an air-lock in the suction line. If equalizer pipes are used, they shall pass an adequate amount of water to meet pump suction requirements in the event that the water in the pool drops below the weir level. If any other device or arrangement is used to prevent an air-lock in the suction line, a sufficient amount of water shall flow to maintain pump suction. Equalizer pipes shall be designed to carry the designed flow of the skimmers. The equalizer pipes shall be located at least one (1) foot below the lowest overflow level of the skimmer. A valve or equivalent device that will remain tightly closed under normal operating conditions but will automatically open when the water level drops below the minimum operating level of the skimmer weir shall be provided on each equalizer pipe.

e. Continuous Skimming. All pools shall be designed to provide continuous skimming. For pools with gutters, makeup water supply equipment shall be provided to automatically maintain continuous skimming. For pools with skimmers, the water level shall be maintained midway between the bottom and the top edges of the skimmer opening.

f. Recirculating Main Drain.

(1) Installations and fittings. At least one (1) recirculating main drain shall be installed in the pool bottom except that the main drain required in a reverse flow pool under sub. (10) (d) need not be connected to the recirculation system. Main drain fittings shall be of the grate type and shall be set flush with the floor. The fittings shall be designed to carry one-hundred percent (100%) of the recirculation rate at a velocity not greater than 1.5 feet or 45.7 cm per second through the clear area of the grate. Outlet grates shall be anchored. Openings in grates shall be 0.5 inch or 1.3 cm or less in width or diameter. Grates shall not be removable except with tools.

(2) Piping.

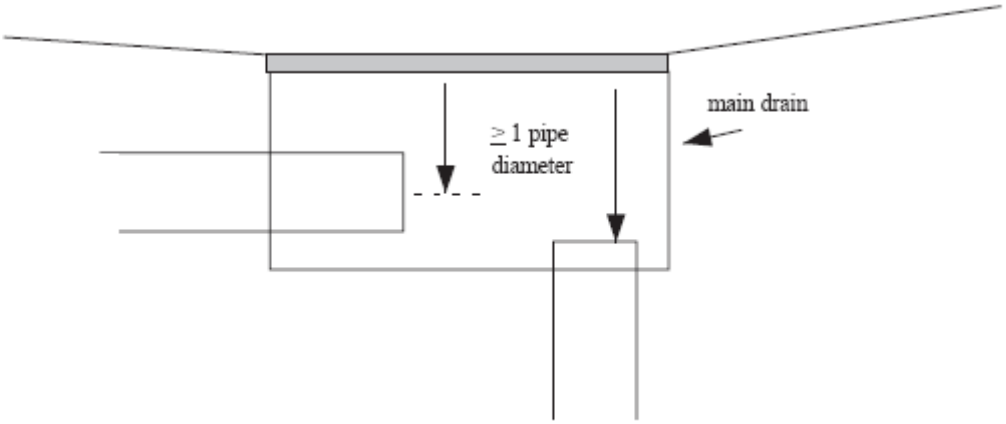
(a) The piping from the recirculation main drain shall be designed to carry one-hundred percent (100%) of the recirculation rate at a velocity not greater than eight (8) feet or 2.4 m per second. The piping shall contain a manual control valve located so that it is easily accessible.

(b) Outlet Piping.

1 Where the outlet piping is located in the bottom of the main drain, there shall be a minimum space of at least one (1) pipe diameter between the outlet pipe termination and the grate.

2 Where the outlet piping is located in the side of the main drain, there shall be a minimum space of at least one (1) pipe diameter between the center line of the outlet pipe termination and the grate see figure 14-1 for further explanatory material. Figure 14-1 repeated in Chapter IV, Section 63, subparagraph b.

FIGURE 14-1
MAIN DRAIN PIPING



(3) Operation. For all pools except reverse flow pools, twenty to twenty-five percent (20 to 25%) of the recirculated water shall be drawn through the main drain.

g. Strainers and Screens. Suitable strainers or screens shall be provided through which all water shall pass before entering the pump suction. The strainers or screens shall be of rigid construction, fabricated of a corrosion- resistant material and sufficiently strong to prevent collapsing when clogged. The openings in the strainer or screen shall be no greater than 1/8 inch or 0.31 cm in any dimension. The total clear area of all openings shall be at least four (4) times the area of the connecting pipe. If the strainer is of the pot design, it shall have a quick-opening cover. One (1) spare strainer basket shall be provided for each strainer. No bypass around the strainer or screen is permitted. The line containing the strainer shall be properly valved to allow for servicing.

h. Pumping Equipment.

(1) Recirculation. The recirculation pump or pumps shall have a capacity that is adequate for circulating the volume of water necessary to provide a complete turnover of diving pool, swimming pool and combination pool water in a six (6) hour period. Unless specifically stated in Table 14-1 or elsewhere in this chapter, water turnover times for other pools shall be approved by the department. Provision shall be made to ensure that the pump does not become air-bound. Where necessary, self-priming pumps shall be installed. The pump or pumps shall be capable of providing the design flow rates at a total dynamic head of fifty (50) feet or 15.25 m of pressure for all vacuum filters, seventy (70) feet or 21.35 m of pressure for sand or cartridge filters and eighty (80) feet or 15.25 m of pressure for diatomaceous earth filters, unless lower or higher heads are shown by the designer to be hydraulically appropriate.

Table 14-1
THERAPY/EXERCISE POOL TURNOVER TIME

Temperature in ° F. (° C.)	Load (gals/person) [FN1]	Minimum Turnover Time (hours)
72-93 (22-33 ° C.)	>= 2,500	4
72-93 (22-33 ° C.)	>= 450	2
72-93 (22-33 ° C.)	< 450	1
>93-104 (>33-40 ° C.)	N/A	0.5

N/A = not applicable.
FN1. The number of is equal to posted patron load.

Note: A therapy area within a multi-section pool having a temperature of <= ninety-three degrees (93 °) F. would be considered an activity pool.

(2) Backwashing. The pump or pumps shall be capable of providing the necessary quantity of water for backwashing filters.

i. Filtration.

(1) General.

(a) A swimming pool water treatment system shall have one or more filters. Filters shall conform to ANSI/NSF 50 or shall be approved by the department. Filters shall be installed with adequate clearance and facilities for easy and safe filter media inspection, maintenance, disassembly and repair.

(b) Pressure filter shells and piping shall be designed and constructed for a minimum working pressure of fifty (50) pounds per square inch with a safety factor of four (4). When the maximum shut-off head of the pump used with the filter tank exceeds fifty (50) pounds per square inch, the tank shall be designed for this head with a safety factor of four (4).

(c) Vacuum-type filter shells shall be designed to withstand pressure developed by the weight of the water contained in the shell with a safety factor of 1.5. In addition, filters that are closed during any part of the operating cycle shall be designed to withstand a vacuum equal to twenty-five (25) inches of mercury with a safety factor of 1.5.

(d) A manual of instruction shall be provided to the owner with each filter or group of filters which shall include all drawings, illustrations, operating procedures, charts and parts lists. Data plates of a permanent nature, inscribed and located so that they can be easily read and understood, shall be securely attached to the filter shell. The plates shall provide the following information:

1 Manufacturer's name and address;

2 Filter model number;

3 Filter serial number;

4 Effective filter area in square feet;

5 Design flow rate in gallons per minute;

6 Maximum working pressure; and

7 Date of manufacture.

(e) Each valve shall have a permanent identifying label or tag attached to it.

(f) Each filter unit shall have a suitable opening to permit the installation and easy removal of internal filter components such as the upper and lower distribution systems, filter media, cartridges, filter elements and septums. When multiple filter units are used, filters and associated piping shall be equipped with sufficient valves to permit isolation of individual filters for repair while other filters are in service. When diatomaceous earth filters are employed, sufficient valving shall be provided to permit recycling during the precoat operation.

(g) Filters shall be provided with the following appropriately located accessories where applicable: a pressure gauge or gauges, a vacuum gauge or gauges, a backwash sight glass on the waste discharge line and an air relief valve or valves at the high point of the filter.

(h) A means of continuously measuring rate-of-flow shall be provided in all recirculation systems and in the backwash system on pressure sand filters. The rate-of-flow indicator shall be of a type approved by the department. The indicator shall be capable of measuring at least 1.5 times the design flow rate, and shall be accurate within ten percent (10%) of true flow. The indicator shall be installed where it is readily accessible for reading and maintenance and in accordance with the manufacturer's recommendation.

(i) A device for regulating the rate-of-flow shall be provided in the recirculation pump discharge piping.

(2) Sand filters - pressure type.

(a) The design filtration rate of rapid-rate sand filters may not exceed three (3) gallons per minute per square foot (0.09 m^2) of bed area. With high-rate sand filters the rate may not exceed fifteen (15) gallons per minute per square foot or 0.09 m^2 of bed area.

(b) The initial head loss through any filter with a permanent media when operating at the design flow rate may not exceed three (3) pounds per square inch or 6.5 cm^2 or the psi recommended by the filter manufacturer. The head loss shall be the difference between the pressure at the inlet piping and the pressure at the outlet piping or whatever head loss measure is recommended by the manufacturer.

(c) The upper distribution system shall be hydraulically designed to distribute incoming water during the filter cycle so that any movement or migration of the filter media at the design flow rate is prevented and to properly collect water during the backwash cycle. The total opening area of the system shall be equal to or greater than the area of the backwash effluent piping. The backwash water collection openings shall be located not less than eighteen (18) inches or 45.7 cm above the design level of the filter media. The maximum horizontal travel of suspended particles to reach the draw-off point may not be more than three (3) feet or 0.91 m. Vertical filters shall have a straight side shell height of twelve (12) inches or 30.5 cm above the filter bed.

(d) The lower distribution system shall be designed to permit adequate flow and distribution of wash water to uniformly expand the filter media during the backwashing and to uniformly collect the filtered water during the filter cycle. If a perforated plate is used, it shall be placed horizontally across the bottom of the filter or arched so that it will cover the entire cross-sectional area of the filter shell. The ratio of total underdrain orifice area to total area of bed shall be between 0.25% and 0.40%. The distribution system shall be designed to prevent clogging and shall be constructed of materials resistant to corrosion, physical deformation and wear.

(e) Sand shall be hard siliceous material free of carbonates or other foreign material with an effective particle size of between 0.45 and 0.60 millimeters and a uniformity coefficient not exceeding 1.75. The filter sand bed shall have a minimum depth of twenty (20) inches or 50.8 cm.

(f) Where gravel is used to support the filter media, the gravel shall be rounded washed material free of limestone and fines and be placed in layers properly graded to prevent intermixing. The total gravel bed depth may be not less than ten (10) inches or 25.4 cm. A reduction in depth of gravel or its elimination is permitted where equivalent performance and service by other means can be demonstrated.

(g) With sand media the minimum backwash rate may not be less than fifteen (15) gallons or 56.8 L per minute per square foot or 0.09 m^2 of filter bed area or so great as to cause loss of the media.

(h) The backwash water from pressure sand filters shall be discharged in accordance with Table 14-2.

TABLE 14-2
ALLOWABLE DISCHARGE POINTS BY SPECIFIC USE

Use Or Fixture	POWTS[a]	Municipal Sanitary Sewer	Municipal Storm Sewer	Ground Surface	Combined Sanitary Storm Sewer	Subsurface Dispersal[i]
Swimming Pool or Wading Pool diatomaceous earth filter backwash	X	X			X	
Swimming Pool or Wading Pool drain wastewater	X	X[b]	X[b,c]	X[b,c]	X[b]	X
Swimming Pool or Wading Pool	X	X[b]	X[b,c]	X[b,c]	X[b]	X

sand filter backwash						
Whirl pool backwash drain and wastewater	**X**	**X**	**X[c]**	**X[b,c]**	**X**	

a Allowed when the POWTS is designed to include designated wastewater.
b Unless prohibited by local municipality and when no nuisance is created.
c A discharge permit may be required by the department of natural resources.
e Allowed for exterior installation and when no sanitary sewer is in the building.
f Refer to the department of natural resources for discharge regulations.
g Fifty gpd clearwater.
h The department of natural resources may require WPDES permits for industrial discharges and may allow other options.
i Subsurface dispersal must comply with Title 3 Health and Safety Codes of the Ho-Chunk Nation.

(3) Vacuum-type sand filters. Vacuum sand filters may be used if they comply with NSF specifications and the following requirements:

(a) The design filtration rate of vacuum-type sand filters shall be no more than fifteen (15) gallons or 56.8 L per minute per square foot or 0.09 m^2;

(b) Pool water shall be evenly distributed over the entire surface of the filter bed;

(c) The filter media shall consist of hard siliceous sand material free of carbonates or other foreign material, with an effective particle size of 0.45 millimeters and a uniformity coefficient of 1.4 maximum. The filter sand bed shall have a minimum depth of twenty (20) inches or 50.8 cm. The gravel used to support the filter media shall be rounded, washed material, free of limestone and fine particles, and placed in layers properly graded to prevent intermixing;

(d) The lower water collection and distribution system shall be designed to uniformly collect the filtered water from the entire filter bed during the filter cycle;

(e) The backwash rate shall be a minimum of fifteen (15) gallons or 56.8 L per minute per square foot or 0.09 m^2 of filter surface;

(f) Backwash water shall be discharged to a storm sewer or to ground surface as specified in Section 14, subparagraph i. (2) (h); and

(g) All appurtenances and tank construction shall conform to applicable parts of this subsection.

(h) The national sanitation foundation's swimming pool equipment standards may be obtained from the National Sanitation Foundation, NSF Building, P.O. Box 1468, Ann Arbor, Michigan 48106.

(4) Diatomaceous earth filters - pressure and vacuum types.

(a) The design filtration rate for pressure or vacuum filters shall be 1 to 1.5 gallons or 3.8 to 5.7 L per minute per square foot or 0.09 m^2 of effective filter area, with a turnover rate of six (6) hours or less.

(b) The initial head loss between the filter inlet and discharge openings of a pressure filter, when operating with the required precoat and at the design flow rate, may not exceed three (3) pounds per square inch or 6.5 cm^2.

(c) The filter and piping shall be so designed that during precoating the effluent will be refiltered or be wasted unless it can be demonstrated that the filter septums are constructed so that no perceptible suspended solids are present in the filtered water.

(d) Elements of a Septum.

1 The effective filter area of a septum shall be the part that is active during filtration. Septum supports do not reduce the effective filter area provided that the dimension of the cross section does not exceed 1/4 inch or 0.64 cm. The design distance between the side walls of the filter shell and the septum surfaces and between surfaces of the septum shall be at least one (1) inch. Elements and element assemblies shall be firmly installed in the tank.

2 Elements shall be capable of withstanding a test pressure differential of twenty (20) pounds per square inch in vacuum filters and seventy-five (75) pounds per square inch in pressure filters.

(e) A suitable baffle or similar device shall be installed in the filter tank to prevent undesirable water currents. The design and arrangement of the interior filter components shall provide for uniform distribution of the filter aid over the entire septum area.

(f) Filter Aid.

1 For pressure-type filters, precoat feed equipment shall be provided to apply not less than 0.1 pound of filter aid per square foot of filter area after each backwash.

2 Feeding equipment capable of continuously applying the filter manufacturer's recommended amount of filter aid shall be provided. An adequately sized positive displacement-type feeder for the addition of filter aid shall be provided for pressure-type filters. A slurry tank, capable of holding a one (1) day supply of a five percent (5%) mix of filter aid slurry shall be provided. The slurry tank shall have an agitator. Vacuum filters shall be equipped in the same way as pressure filters or with a mechanical dry filter aid feeder. Recirculated pool water or water from an acceptable source shall be used to flush the slurry feeder pump head. The

flushing system shall be designed to flush the slurry feeder pump head once every fifteen (15) minutes for a sufficiently long duration to effectively flush out the pump head.

(g) Filter and piping design shall permit cleaning by one (1) or more of the following methods: backwashing, air bump assist backwashing, spray rinse or agitation. Means shall be provided for removal of the waste water, dislodged filter aid and dirt from the filter tank.

(h) Waste water shall be discharged in accordance with Table 14-2. The connection to the sewer or discharges to grade shall be by means of a positive air-gap where inundation of the outlet is possible.

(i) If separation tanks are installed, they shall be provided with an air relief valve. A cautionary statement warning the user not to start up the filter pump without opening the air release valve shall be permanently affixed to the separation tank within the area of the air relief valve and shall be easily readable.

(j) Accessories shall be provided in accordance with Section 14, subparagraph i. (1) (g). The vacuum gauge shall be located between the filter and the recirculation pump. A vacuum limit switch interconnected with the recirculation pump controls shall be provided.

(5) Cartridge filters.

(a) The design filtration rate for cartridge filters of the depth type shall be three (3) or fewer gallons per minute or 11.4 or fewer liters per minute per square foot or 0.09 m^2 meters of cartridge cylinder surface area. For surface types, the filtration rate shall be no greater than 0.375 gallons or 1.42 liters per minute per square foot or 0.09 m^2 of the pleated area of the cartridge.

(b) The initial head loss through filters may not exceed three (3) pounds per square inch or 6.5 cm^2 at the design flow rate.

(c) The filters shall be designed and fabricated in accordance with the applicable portions of Section 14, subparagraph i. (1).

(d) Cleaning of the cartridges shall be accomplished according to manufacturer's recommendations either in place or by cartridge removal, depending on the type of unit installed.

(e) All waste water, including solids, resulting from cartridge cleaning shall be discharged to a sanitary sewer or disposed of on the owner's property in a manner that does not create a health hazard or nuisance.

(f) A duplicate set of cartridges shall be available for replacement as needed.

(g) Cartridge filters may not be used on swimming pools larger than seventy-thousand (70,000) gallons.

j. Inlets.

(1) Type. Inlet fittings shall be adjusted so that they produce a uniform flow rate to ensure that treated water is effectively distributed throughout the pool. Directional flow inlets shall be used with skimmer-type pools and shall be designed to cause a rotation of the water surface and to prevent areas of inadequate circulation within the pool. Water velocity through any inlet shall be in the range of five to twenty (5 to 20) feet per second. In pools with skimmers, water velocity shall be in the range of ten to twenty (10 to 20) feet per second.

(2) Number. At least one (1) inlet shall be provided for each fifteen (15) feet of pool perimeter or fraction thereof.

(3) Location. Wall inlets shall be located at least twelve (12) inches below the design water surface. They shall be spaced not more than fifteen (15) feet apart, with one (1) inlet within five (5) feet of each corner of the pool. Inlet piping shall be sized on the basis of the flow it must carry. If a pool is over sixty (60) feet in width, inlets shall be located in the bottom of the pool and shall be uniformly spaced not more than twenty (20) feet apart in a row within fifteen (15) feet of each wall.

(4) Reverse flow pool. The requirements under Section 14, subparagraphs j. (1), (2) and (3) do not preclude the use of a reverse flow pool. For a reverse flow pool, bottom inlets shall be provided as in Section 14, subparagraph j. (3). A main drain shall be provided in a reverse flow pool for complete drainage.

15. **Disinfection of Pool Water**.

a. Disinfectant approval and usage:

(a) Disinfectant producing chlorine or bromine and any supplemental chemical used shall meet all of the following requirements:

1 The disinfectant or supplemental chemical is registered with the U.S. environmental protection agency as a disinfectant, and the product label is registered with the Wisconsin department of agriculture, trade and consumer protection. If the pool or water attraction is located outside of the State of Wisconsin, then the product label must be registered with that State's equivalent agency to the Wisconsin department of agriculture, trade and consumer protection. If that state does not have an equivalent agency or does not require that disinfectants or supplemental chemicals be labeled with that agency, the disinfectant or supplemental chemical only needs to be registered with the U.S. environmental protection agency as a disinfectant.

2 The disinfectant has an effective residual that can be measured easily and accurately by an approved field test procedure.

3 The disinfectant is compatible for use with other chemicals normally used in the water treatment or is clearly identified as having a use limitation.

4 The disinfectant does not impart toxic properties to the water when used according to the manufacturer's directions.

5 The disinfectant does not create an undue safety hazard when handled, stored or used according to the manufacturer's directions.

(b) Bromine. Bromine may not be used in a waterslide, pool slide, plunge pool or wave pool without the department's approval.

(c) Gas chlorination.

1 Where chlorine gas is used, all staff who operate equipment shall be trained in the handling and use of chlorine gas, including the use of the self–contained breathing apparatus.

2 A plastic bottle of ammonium hydroxide or another leak detection method approved by the department shall be available at the chlorine gas storage area. If an electronic leak detection system is installed, it shall be located in gas storage rooms and shall be maintained and tested annually. The results of the testing shall be maintained on the site.

3 A list of telephone numbers to contact appropriate emergency personnel in the event of an emergency related to chlorine use shall be conspicuously posted at a continuously accessible telephone located reasonably close to the chlorine gas storage room. A durable placard clearly stating the location of the nearest accessible phone shall be posted on the outside of the chlorine gas storage room door.

4 A self–contained breathing apparatus designed for use in a chlorine gas atmosphere shall be stored where it is immediately accessible to personnel who enter the chlorine gas storage room. The apparatus shall be continuously usable and readily accessible, and replacement parts shall be readily accessible. The pool shall implement a written respiratory protection plan in compliance with *Occupational Safety and Health Program Act* subsection 3 *Hazard Communication* (6 HCC § 8-3) that includes procedures for the selection and use of respirators and training users.

5 A written plan of action for responding to a chlorine gas emergency shall be posted and practiced by maintenance staff.

b. Equipment.

(1) General. Equipment shall be provided for continuous disinfection of pool water. For a water attraction, an electronic system for the continuous monitoring and feeding of a disinfectant into the recirculation system shall be installed. Where an electronic monitoring

system in connection with the operation of automatic chemical feeding equipment is not required, its installation is strongly recommended.

(2) Feeders. Disinfectant feeders shall be approved by the department. These feeders shall be automatic, easily adjustable, and capable of providing the required chemical residuals, have flow control valves upstream and downstream from the feeder, be easily disassembled for cleaning and maintenance, and be durable and capable of accurate feeding with a rate-of-flow meter installed to accurately measure the flow through the feeder system. Feeders shall be installed according to the manufacturer's directions, shall be used only with the disinfectant recommended by the manufacturer, shall be properly vented and shall incorporate antisiphon safeguards to prevent disinfectant feeding in the event of the failure of recirculation equipment. Feeder pumps shall be electrically connected to the recirculating pump control circuit.

(3) Capacity. Disinfectant feeding equipment shall be capable of supplying disinfectant in the pool water at a concentration of not less than ten (10) ppm (mg/l) of chlorine or bromine for indoor pools and twenty (20) ppm (mg/l) of chlorine or bromine for outdoor pools.

(4) Point of addition. Disinfectant shall be fed into the pool water recirculating system at a point downstream from any heater, or at another point of introduction based on the feeder manufacturer's recommendations and the resulting residual disinfectant level in the pool water.

(5) Data plate. An easily accessible and readable data plate shall be permanently secured to the disinfectant feeder. The data plate shall contain the following information:

(a) Manufacturer's name and address;

(b) Feeder model and serial number;

(c) Maximum output rate;

(d) Chemicals recommended;

(e) A statement that the use of chemicals other than those recommended may be hazardous; and

(f) A statement about whether or not the unit has been evaluated for swimming pools or for spas.

c. Gas Chlorination.

(1) Housing. Where gaseous chlorine equipment is provided, the mechanical proportioning device, scales and cylinders of chlorine shall be housed above grade, in a reasonably gas-tight, corrosion-resistant and mechanically vented room with a door opening

outward to the outside. The mechanical exhaust system shall be capable of providing at least one (1) air change per minute and shall consist of an airtight duct beginning not more than eight (8) inches above the floor and terminating at a safe point of discharge at least eight (8) feet above the outside surrounding grade. An air duct or louvered intake opening shall be provided to supply fresh air to the chlorine room. The room shall have an observation window at least eighteen (18) inches square and shall have artificial lighting. Electrical switches for the control of lighting and ventilation shall be located on the outside of the room.

(2) Cylinder storage. Chlorine cylinders shall be securely fastened in place. Keys or valves shall be provided on the chlorine cylinder being used so the supply can be shut off quickly in case of an emergency.

(3) Gas feeding safety.

(a) The chlorine feeding device shall be designed so that during accidents or interruptions of the flow of the water supply, gas feeding is automatically stopped. The release of chlorine shall be terminated when the recirculation pump is not in operation.

(b) Where a vacuum-type gas chlorinating system is used, the ejector may be installed in the pool water return piping located in the filter room. The ejector shall be operated by means of recirculated pool water or, if water other than recirculated pool water is used to inject chlorine, the water supply line shall be equipped with an electric shutoff valve wired to the recirculation pump and shall be provided with a backflow preventer approved by the department.

(c) Chlorinator vent lines shall be directed to the building exterior and away from the pool area.

d. Dry Chlorine Compounds.

(1) Solution. A minimum of two (2) solution tanks, one (1) for mixing the chlorine compound with water and the other for collecting and feeding the decanted solution, shall be provided.

(2) Tank capacity. The minimum capacity of a solution tank shall be adequate to provide one (1) day's maximum usage.

16. **Piping for a pool**.

a. Size. The size of pool piping, fittings and valves shall be based on all of the following:

(1) The maximum water velocity for pressure piping shall be ten (10) feet/second or 3.05 m/sec., except for copper piping where the maximum velocity shall not exceed eight (8) feet/second or 2.44 m/sec.

(2) The maximum water velocity for suction piping shall be six (6) feet/second or 1.8 m/sec. and 1 1/2 feet/second or 0.5 m/sec. flow rate through the suction grates.

(3) Gutter drain lines shall be sized to be capable of continuously removing at least one-hundred and twenty-five percent (125%) of recirculated water.

b. Material. The recirculation piping and fittings shall be constructed of nontoxic material and shall be resistant to corrosion and able to withstand operating pressures. Acceptable materials for pool recirculation system piping are plastic, copper, galvanized steel, cast iron, ductile iron and any other material suitable for water supply.

c. Expansion and Contraction. The design of the piping system shall permit expansion and contraction as needed.

d. Fittings. All pool fittings shall be of corrosion-resistant materials.

e. Pipe Coding. All exposed piping shall be color coded or provided with permanent labels or tags for easy identification.

f. Hose bibbs. At least one (1) hose bibb shall be provided in the equipment room. An additional hose bibb shall be provided in each toilet facility, and at intervals along the deck so as to permit adequate cleaning using a maximum of one-hundred (100) feet or 30.5 m of hose. A hose bibb in the equipment room or dressing, shower and toilet facility may be used for deck cleaning if located where a door opens directly to the deck and so that no more than one-hundred (100) feet or 30.5 m of hose, when laid across the deck surface, is needed to reach all areas of the deck. All hose bibbs shall be protected against backsiphonage by proper installation of approved backflow prevention devices, as required in the Ho-Chunk Nation *Water Utility Ordinance* (3 HCC § 7).

g. Installation and Draining of Pipes. All equipment and piping shall be designed and fabricated to drain completely by removal of drain plugs, manipulating winter drain valves or by other approved means. All piping shall be supported continuously or at sufficiently close intervals to prevent sagging. All suction piping shall be sloped in one direction, preferably toward the pump. If the pool is to be maintained full of water during a period of freezing temperatures, all submerged inlets, vacuum cleaner fittings and other openings into the pool shall be provided with insertable plugs or valves to allow the connected piping to be drained to a point below the frost line. The engineer or architect shall furnish draining instructions to the owner together with drawings showing pipe and valve locations tagged by the contractor which clearly define the required procedure.

h. Sewers and Sewer Connections.

(1) Restrictions.

(a) Exposed drain lines may not pass over the pool, a surge tank, an open filter or the deck.

(b) Clear water drain lines may not discharge to a sanitary sewer. Clear water drain lines shall discharge to a storm sewer or to the ground surface at a point where a nuisance or health hazard will not be created, except that clear water drain lines may not connect to a storm sewer if surcharge of the drain line can cause contamination of the pool water or flooding of the equipment room.

(2) Pumpout. A pool pumpout line or a portable pump for draining the pool shall be provided if gravity drainage is not possible.

17. **Pool water heaters and thermometers**.

a. Installation of Heaters.

(1) Listed equipment. All water heaters shall bear the label of a listing agency acceptable to the department.

(2) Design.

(a) All pressurized water heaters and pressurized hot water storage tanks, except those bearing the label of the Register, November, 2004, No. 587 American Society of Mechanical Engineers, shall be designed and constructed to withstand a minimum test pressure of one-hundred and fifty percent (150%) of the maximum allowable working pressure of the heater or tank.

(b) All pressurized water heaters and pressurized hot water storage tanks shall be rated for a minimum working pressure of 125 psig.

(c) A drain valve shall be installed at the lowest point of each water heater and hot water storage tank. Drain valves shall conform to ASSE 1005.

(3) Safety devices.

(a) Relief valves shall be listed by the American Gas Association, Underwriters Laboratories, Inc. or American Society of Mechanical Engineers when the heat input to a water heater is less than or equal to two-hundred thousand (200,000) Btu per hour.

(b) Relief valves shall be listed by the American Society of Mechanical Engineers when the heat input to a water heater exceeds two-hundred thousand (200,000) Btu per hour.

(c) Pressure relief valves shall be set to open at either the maximum allowable working pressure rating of the water heater or storage tank or one-hundred and fifty (150) psig, whichever is smaller.

(d) Temperature and pressure relief valves shall be set to open at a maximum of two-hundred and ten degrees (210º) F and in accordance with Section 17, subparagraph a.(3)(c).

b. Thermometer. A thermometer accurate to within plus or minus two degree (2°) F. or one degree (1°) C. in the operating range shall be installed in the pool water recirculation piping to monitor pool temperature and shall be accessible for reading.

c. Equipment. Heaters shall be installed and tested in accordance with NFPA 54 for gas-fueled applications or the Ho-Chunk Nation *Occupational Safety and Health Program Act* (6 HCC § 8) for electric applications.

18. **Lifeguard chair requirements for pools**. Each swimming-only, diving, or combination swimming and diving pool, other than one reserved for training or competitive purposes, that has at least two-thousand (2000) square feet or 186 m^2 of water surface shall have at least one (1) elevated lifeguard chair. For pools larger than two-thousand (2000) square feet or 186 m^2, one (1) lifeguard chair shall be provided for the first two-thousand (2000) square feet and an additional chair shall be provided for each additional two-thousand (2000) square feet. If more than one (1) lifeguard chair is required and the pool width is forty-five (45) feet or 13.72 m or more, the lifeguard chairs shall be located on opposite sides of the pool. The chairs shall be in locations that provide a clear, unobstructed view of the pool bottom in the area under surveillance. One (1) chair shall be located near the diving well.

19. **Dressing areas, showers, toilet facilities and drinking fountains required.**

a. General Requirements. Toilet and hand wash facilities, and public drinking fountains shall be located so that they are accessible by a length of paved walking surface no greater than three-hundred (300) feet or 98.4 m from the nearest rim of the most distant pool. Showers and dressing facilities shall be conveniently located on the premises and accessible by a length of paved walking surface. All applicable building requirements of *Occupational Safety and Health Program Act* (6 HCC § 8) and the IBC shall apply to the construction of indoor pool housing and bathhouses. For additional information please see tables 19-1 and 19-2. Figure 19-1 and Figure 19-2 repeated in Chapter IV, Section 63, subparagraph c and e, respectively and should be consulted for further information regarding indoor pools.

TABLE 19-1

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

OCCUPANCY	FLOOR AREA IN SQ. FT. PER OCCUPANT
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross

TABLE 19-2

MINIMUM NUMBER OF PLUMBING FACILITIES [a]

OCCUPANCY	WATER CLOSETS (see s. Comm 62.2902(1) for urinals)		LAVATORIES	BATHTUBS/ SHOWERS	DRINKING FOUNTAINS (see the *International Plumbing Code*)	OTHERS
	Male	Female				
Theatres, halls, museums, etc. [+]	1 per 100	1 per 75	1 per 200	—	1 per 500	1 service sink

[+] Public swimming pools and water attractions are included here.

b. Layout.

(1) General. Dressing areas, showers, and toilet facilities to be used simultaneously by both sexes shall be divided into two (2) parts designated by sex and separated by a tight opaque wall. Entrances and exits shall be mazed to break line of sight.

(2) Floors and drains. Floors shall have a smooth, hard, non-absorbent, slip-resistant surface. A smooth, hard, non-absorbent surface shall extend upward on the walls at least six (6) inches or 15.2 cm. Junctions between walls and floors shall be coved. When floor drains are installed, drain openings shall be 1/2 inch or 1.27 cm or less in width or diameter.

(3) Drainage of unroofed areas. Floor drains in unroofed dressing areas shall be connected to a storm sewer or discharged to grade through an air-gap or the floor shall slope to the outer perimeter ground surface.

(4) Hosebibbs. Hosebibbs shall be installed in the toilet facility as required in Section 16, subparagraph f.

(5) Walls and partitions. Walls and partitions shall have a smooth, hard, nonabsorbent surface to a height of at least four (4) feet or 122 cm above the floor, except for structural elements. Except for structural elements, a space of ten to twelve (10 to 12) inches or 25.4 to 30.5 cm) shall be provided between the floor and the bottom of partitions forming compartments within dressing, shower and toilet rooms.

(6) Lockers. Lockers shall be set either on solid masonry bases at least four (4) inches or 10.2 cm high or on legs extending at least ten (10) inches or 25.4 cm above the floor.

(7) Soap. A soap dispensing system shall be provided at lavatories and showers served by sanitary drains. Dispensers shall be made of durable material and shall be solidly mounted. Glass dispensers may not be used.

(8) Water heaters. Water heating equipment of adequate capacity shall supply water at a temperature between ninety degrees (90°) F. or thirty-two degrees (32°) C. and one-hundred and fifteen degrees (115°) F. or 45° C. to all showers and lavatories. Water heating equipment shall be in accordance with NFPA 54 for gas-fueled applications or the Ho-Chunk Nation *Occupational Safety and Health Program Act* subsection *Electrical Safety* (6 HCC § 8-4).

(9) Temperature control. The water temperature to all showers in public buildings shall be controlled by thermostatic or combination thermostatic−pressure balanced mixing valves or by individually controlled pressure balanced mixing valves. A thermostatic or combination thermostatic−pressure balanced mixing valve may not be bypassed.

(10) Ventilation.

(a) All pool areas, bathhouses, dressing rooms, shower and toilet rooms shall be adequately ventilated, either by natural or mechanical means, to eliminate the accumulation of condensate and odor. The ceiling or canopy over a pool, whirlpool or water attraction shall be constructed so that moisture or condensation from the ceiling or canopy does not drain into the pool, whirlpool or water attraction.

(b) See also IMC (International Mechanical Code) for air exchange requirements.

(11) Required number of sanitary fixtures.

(a) The required minimum number of toilets, lavatories, showers and drinking fountains at pools shall be based on Table 19-3.

TABLE 19-3

MINIMUM NUMBER OF SANITARY FIXTURES REQUIRED AT PUBLIC POOLS AND WATER ATTRACTIONS

Pool Facility, Indoor or Outdoor [a] (example of location)	Cumulative Area of Surface Water (in sq. feet)	Number of							
		Public Toilets		Public Urinals	Public Lavatories		Public Showers		Public Drinking Fountains[b]
		F	M	M	F	M	F	M	
1. Swimming pools, wading pools and whirlpools in conjunction with living units having plumbing, except for items 2. to 5. No open swim or lessons permitted.	<2000	One unisex		0	One unisex		0	0	1 [a]
(i.e., apartments, hotels, motels, condos and mobile home parks)	2000 – 7500	1	1	0	1	1	1	1	1
	>7500	See note below for requirements.							
2. Swimming pools, wading pools and whirlpools without living units,	<2000	1	1	0	1	1	1	1	1
except for items 3. to 5.; and swimming pools, wading pools and	2000 – 3999	3	1	2	1	1	2	2	1
whirlpools with living units where	4000 – 5999	4	2	2	2	2	4	4	1
open swim or lessons are permitted;	6000 – 7499	4	2	2	2	2	5	5	1
and water attractions where lessons	7500 – 8999	8	2	2	3	2	5	5	2
are conducted.	9,000 – 9,999	10	2	3	4	3	6	6	2
(i.e., municipal pools and campgrounds)	10,000 –12,999	12	3	3	4	3	6	6	2
	≥ 13,000 – 15,000	14	3	4	5	4	7	7	3
	>15,000	See note below for requirements.							
3. Water attractions and water attraction complexes,									
with living units.	<7500	1	1	0	1	1	1	1	1
No open swim or lessons permitted.	7500 – <10,000	4	1	1	2	2	2	2	2
Use 300 sq. ft. for slides without basins	10,000 – <15,000	8	2	2	2	2	2	2	2
(i.e., activity pools, waterslide plunge	15,000 – <22,500	12	3	3	3	3	3	3	3
pools, leisure river or tubing pools,	22,500 – <30,000	12	3	3	3	3	3	3	3
and wave pools)	30,000 – <37,500	16	4	4	4	4	4	4	4
	≥ 37,500	See note below for design.							
4. Water attractions and water attraction complexes,									
without living units.	<7500	2	1	1	1	1	1	1	1
No lessons are permitted.	7500 – <10,000	6	2	1	2	2	2	2	2
Use 300 sq. ft. for slides without basins.	10,000 – <15,000	8	2	2	2	2	2	2	2
(i.e., activity pools, waterslide plunge	15,000 – <22,500	12	3	3	3	3	3	3	3
pools, leisure river or tubing pools,	22,500 – <30,000	16	4	4	4	4	4	4	4
and wave pools)	30,000 – <37,500	20	5	5	5	5	5	5	5
	≥ 37,500	See note below for design.							

Pool Facility, Indoor or Outdoor [a] (example of location)	Patrol Load	Number of							
		Public Toilets		Public Urinals	Public Lavatories		Public Showers		Public Drinking Fountains[b]
		F	M	M	F	M	F	M	
5. Therapy/Exercise pools.	Up to 10	1	1	0	1	1	1	1	1
	11 – 20	2	1	1	1	1	2	2	1
	21 – 30	2	1	1	2	2	3	3	1
	> 30	Per department approval.							

F = female; M = male; < = less than; > = greater than

a For pools with spectator areas, see Tables 19-1 and 19-2 regarding the requirements for sanitary facilities.

b Also refer to Ho-Chunk Nation *Water Utility Ordinance* (3 HCC § 7) for more information regarding source of drinking water.

Notes:

For water attractions in excess of 37,500 sq. ft. use the following additions––

For each 7,500 square feet, add one sanitary unit: 0.7 male water closets, 1.0 male urinal, 0.85 lavatories for males, 1.0 showers for males, 0.6 drinking fountains,

4.0 female water closets, 1.0 lavatories for females and 1.0 showers for females.

For pools in excess of 7,500 sq. ft. and Type 1. above; and for pools in excess of 15,000 sq. ft. and Type 2. above, use the following additions – For each 4,000

square feet, add one sanitary unit: 1.0 male water closets, 1.0 male urinal, 1.0 lavatory for males, 4 showers for males, 4 female water closets, 1.0 lavatory for females, 4 showers for males and 1.0 drinking fountain.

For the requirements listed for additional sanitary facilities, each fraction represents an additional fixture.

(b) As provided for in Table 19-2, separate toilet facilities should be provided for spectators.

(12) Diaper changing station. Each restroom shall be equipped with a least one (1) user-accessible diaper changing station.

20. **Electrical wiring and lighting**.

a. General. All electrical wiring and equipment shall be installed in compliance with the NEC.

b. Lighting. All pools and adjacent associated paved areas that are intended to be used after daylight hours shall be provided with area lighting. There shall be adequate lighting of the appropriate design and in the proper locations to illuminate the pool and associated areas in accordance with NEC. Submarine lighting may be used.

SUBCHAPTER III — WADING POOLS AND WHIRLPOOLS

21. **Wading pools.**

a. General. Wading pools shall be in compliance with the applicable requirements of Sections 8. to 20. and with this section.

b. Design.

(1) Turnover time. The maximum turnover time for wading pools shall be two (2) hours.

(2) Recirculation system. All wading pools shall be provided with a continuous filtration and disinfection system. Each wading pool shall be provided with its own separate system unless otherwise approved by the department.

(3) Inlets and outlets.

(a) At least two (2) submerged inlets shall be provided in a wading pool. One (1) inlet shall be provided for each twenty (20) feet or 6 m of perimeter or fraction thereof.

(b) When skimmers are used, one (1) shall be provided for each four hundred (400) square feet or 37.16 m^2 of surface area or fraction thereof. An overflow gutter may be installed on one (1) or more of the side walls in lieu of skimmers. The gutter shall have an adequate length and capacity which will provide an overflow rate and circulation pattern to assure effective and continuous skimming.

(c) A waste outlet shall be provided at the deepest point of the pool to permit complete emptying.

(d) Inlet and outlet grating shall have slotted openings 1/4 inch or 0.64 cm or less in width.

(4) Water depth. The maximum depth of the water may not exceed twenty-four (24) inches or sixty-one (61) cm. The water depth at the perimeter may not exceed eighteen (18) inches or forty-six (46) cm.

(5) Filling options.

(a) A whirlpool or wading pool may be filled using pool water from an adjacent pool. The water shall meet the requirements as specified under the Ho-Chunk Nation *Water Utility Ordinance* (3 HCC § 7) prior to use.

(b) See Section 63, subparagraphs g. and h. for filling options.

c. Obstructions. Obstructions extending from the walls or the bottom of the wading pool are not permitted except with the approval of the department based on design safety. See Section 63, subparagraph i. for more information.

d. Finish. The finish of the walls and bottom of the wading pool shall conform to Section 11, subparagraph 50.

e. Bottom Slope. The bottom of a wading pool shall slope toward the drains with a minimum slope of 0.25 inches per foot or 0.62 cm/0.31 meter and a maximum slope of one (1.0) inch per foot or 2.54 cm/0.31 meter.

f. Decks.

(1) Deck dimensions. In addition to the provisions under Section 22, subparagraph f., a wading pool shall be provided with a minimum of six (6) feet or 1.8 m of continuous, unobstructed deck around fifty percent (50%) of the wading pool perimeter.

(2) Deck drainage. All areas of the deck surrounding a wading pool, including any area between the edge of the wading pool and a wall, shall be constructed to completely drain and be easily cleaned. For decks surrounding wading pools that are twenty (20) inches or 50.8 cm or less in width, decks may drain into the wading pool.

22. **Whirlpools**.

a. General. The owner or operator of a whirlpool shall comply with this section and the applicable parts of Section 8 to 17, 19 and 20.

b. Peripheral Structure.

(1) Roofs and ventilation. The ceiling or canopy over a whirlpool shall be constructed so that moisture or condensation from the ceiling or canopy does not drain into the whirlpool. The whirlpool room shall be adequately ventilated to prevent excessive condensation.

(2) Obstructions and ceiling height.

(a) Pursuant to Section 12, subparagraph (a) (5), there shall be no obstacle or protrusion within a whirlpool or extending from a whirlpool room wall or ceiling which would interfere with the use of the whirlpool or make access difficult.

(b) The minimum headroom measured as the height between the top of the whirlpool rim and the ceiling shall be as required under the UBC.

(3) Cleanable walls and ceiling. The walls and ceiling enclosing a whirlpool shall be constructed of waterproof material that can be easily cleaned. Any wall receiving splashed water from the whirlpool shall be waterproof to a height of no less than three (3) feet above the deck.

(4) Observation window. Except for a private guest room with a telephone, an observation window shall be provided if the whirlpool is located in a separate, enclosed room so as to allow the owner or operator a clear observation of the whirlpool area from outside the room.

(5) Lighting. The room or area in which a whirlpool is located shall be well- lighted to permit observation and the cleaning of surfaces.

c. Location. A whirlpool located in proximity to a swimming-only pool, combination pool or exercise pool may be located:

(1) At any point on the deck along the perimeter of the swimming-only pool, combination pool or exercise pool where the water depth in the swimming-only pool, combination pool or exercise pool equals the water depth in the whirlpool plus or minus six (6) inches or 15 cm; or

(2) At a point along the perimeter of the swimming-only pool, combination pool or exercise pool where the water depth in the swimming-only pool, combination pool or exercise pool is greater than 4.5 feet. or 1.4 m, provided that the deck width separating the pool and whirlpool is a minimum of eleven (11) feet. or 3.4 m.

(3) See also Section 22, subparagraph f. (3).

d. Dimensional Design.

(1) Water depth. The maximum water depth of a whirlpool shall be four (4) feet or 1.22 m measured from the water line. An exception may be made for a whirlpool designed for a special purpose such as instruction, treatment or therapy.

(2) Depth above the seat. The maximum water depth above any seat or sitting bench in the whirlpool shall be two (2) feet or 61 cm measured from the water line.

(3) Bottom slope. The bottom slope of a whirlpool may not exceed one (1) inch or 2.54 cm per foot or 30 cm and shall slope to the main drain.

(4) Maximum number of bathers. There shall be no more than one (1) bather for every ten (10) square feet of whirlpool surface area.

e. Recessed Stairs and Handrails.

(1) General. If a whirlpool is more than twenty-four (24) inches or 61 cm deep, recessed stairs shall be provided. The stairs do not have to be completely recessed but may not extend into the basin beyond the seat.

(2) Number required. Whirlpools shall have stairs, if required, at least every fifty (50) feet or 15.24 m of perimeter or fraction thereof.

(3) Risers and treads. Recessed stairs shall have a minimum unobstructed horizontal tread depth of ten (10) inches or 25 cm, with riser heights no greater than twelve (12) inches or 30 cm, and shall be uniform except that when the bottom tread is used for a seat, the bottom riser may be a maximum of fourteen (14) inches or 36 cm above the whirlpool floor. The minimum width of the stairs shall be fifteen (15) inches or 38 cm.

(4) Stairway handrails. Handrails shall be securely mounted on each side of a stairs. The leading edge of deck-mounted handrails shall be located within three (3) inches or 7.62 cm, horizontally measured, from the vertical plane of the bottom riser. The handrails shall be separated by a maximum of three (3) feet or 0.9 m. The mounted handrails shall not infringe upon the deck width requirement under Section 22, subparagraph f. (1).

(5) Slip-resistant surface. Stair treads shall have a slip-resistant surface.

f. Decks.

(1) Dimensions and whirlpool location. Except for Section 22, subparagraphs f. (1) (a) & (b), a continuous, unobstructed deck at least five (5) feet wide and at the same level as the top of the pool wall shall be provided around at least fifty percent (50%) of a whirlpool. The deck width at any point of egress for a whirlpool shall be a minimum of five (5) feet as measured parallel to the direction of travel from the stairs.

(a) A rim no greater than three (3) inches in height and at least one (1) inch in

width may be provided around the perimeter of a whirlpool.

(b) When a whirlpool is located in a corner of a room, deck width shall be calculated by using the following:

1 The angle between the two (2) room walls shall be at least ninety degrees (90°).

2 A deck width of at least two (2) feet on both sides measured along the center line of the pool perpendicular to the bisector of the angle of the two (2) room walls.

3 No other wall or obstruction shall be located within five (5) feet of the whirlpool rim.

4 For further clarification, see Section 63, subparagraph j.

(2) Drained and cleanable. All areas of the deck surrounding the whirlpool, including any area between the edge of the whirlpool and a wall, shall be constructed to completely drain and be easily cleaned, pursuant to Section 22, subparagraph b. (3). Deck areas around a whirlpool that are twenty (20) inches or 50.8 cm or less in width may drain into the whirlpool.

(3) Deck width between pools.

(a) The deck width between a whirlpool and any other pool shall be at least six (6) feet, except when a common wall not more than eighteen (18) inches wide, designed to prevent someone from standing on it, separates a whirlpool and a swimming pool. A minimum eleven (11) feet deck width shall be provided between any pool and a whirlpool when the whirlpool is located near the portion of the other pool where the depth is greater than 4.5 feet.

(b) See also Section 22, subparagraphs c.

(4) Slip-resistant surfaces.

(a) Decks, ramps and similar surfaces surrounding a whirlpool shall have slip-resistant surfaces to prevent injury or discomfort to bare feet when used as intended.

(b) For location of indoor and outdoor pools near walls see Section 63, subsection j.

f. Temperature Requirements. The maximum water temperature of a whirlpool shall be one-hundred and four degrees (104°) F. or forty degrees (40°) C. Thermostatic controls shall be provided to prevent the water temperature from exceeding this maximum. The controls shall be accessible only to the operator. An accessible and easily readable thermometer, accurate to within plus or minus two degrees (2°) F. or one degree (1°) C. in the operating range, shall be installed in the filtered and heated water return line.

g. Inlets and Outlets.

(1) General. The arrangement of whirlpool inlets and outlets shall produce a uniform circulation of water so that a disinfectant residual is uniformly maintained throughout the whirlpool.

(2) Inlets.

(a) Each whirlpool shall have at least two (2) filtered water inlets located opposite each other and at least twelve (12) inches or 30.5 cm below the water surface.

(b) See Section 14, subparagraph j.

(3) Outlets. Outlets shall be installed so as to produce circulation throughout the whirlpool. The outlets shall meet all of the following requirements:

(a) A main drain shall be installed in the bottom of each whirlpool as specified in Section 14, subparagraph f.

(b) A minimum of two (2) suction outlets shall be provided. Multiple sets of pump suctions shall be allowed into two (2) or more suction outlets as long as they are hydraulically balanced and approved by the department.

(c) Each suction outlet shall be installed with a minimum separation of three (3) feet.

(d) Suction outlets shall be located to conform with any of the following:

1 Suction outlets shall be located on two (2) separate vertical walls.

2 One (1) suction outlet shall be located on the bottom of the whirlpool and one (1) suction outlet shall be located on one of the vertical walls.

(e) When suction outlets are used, no piping or valve arrangement is allowed that will isolate one suction fitting as the sole source of fluid to the pump. The single pipe to a pump suction inlet may be valved to allow shut off of the flow to the pump.

(f) Suction outlets shall be located within three (3) inches of the bottom of a whirlpool.

h. Circulation Systems.

(1) General. All whirlpools shall be provided with one (1) or more pumps, one (1) or more filters, one (1) or more emergency shut-off provisions, a disinfection system and equipment

of adequate size to recirculate, filter and disinfect the entire volume of whirlpool water within thirty (30) minutes or less and to provide water at the quality level established in Section 42.

(2) Water agitation systems. A whirlpool water agitation system, when provided, shall be separate from the water recirculation and treatment system. A manually controlled timer for the agitation system shall be provided within the whirlpool enclosure. The timer shall be out of reach of any person in the whirlpool. Suction outlets for a water agitation system shall be designed for a maximum velocity of 1.5 feet per second through the outlet grating. There shall be a minimum of two (2) outlets per suction system line. The outlets shall be separated by at least three (3) feet and shall be connected with pipe equal in diameter to the pump suction pipe.

(3) Overflow systems.

(a) An overflow system shall be provided for the whirlpool. That system shall be designed and constructed so that the water level in a whirlpool is maintained at the operating level of the overflow rim or weir device of the system.

(b) When surface skimmers are used as the sole overflow system, one (1) surface skimmer shall be provided for every one-hundred (100) square feet or 9.3 m^2 or fraction thereof, of the whirlpool surface area. When two (2) or more skimmers are used, they shall be located to maintain effective skimming action over the entire surface area of the whirlpool.

(c) No more than eighty percent (80%) of the required recirculated water flow rate may be drawn through a skimmer or skimmers. The remaining twenty (20%) shall be drawn through the bottom drain.

(4) Filters. The filters for the whirlpool shall be in compliance with all applicable paragraphs of Section 14, subparagraph i.

(5) Valves. All valves in the whirlpool recirculation system shall be located where they will be easily accessible for maintenance and removal.

(6) Air induction systems. An air induction system, when provided, shall totally prevent water backup that could cause electrical shocks. Air intake sources shall not bring contaminants such as deck water, dirt or other foreign material into the whirlpool.

(7) Equipment room. If a room housing the filtration equipment and pool water heater is provided, it shall be large enough to permit easy access to all equipment for both operation and maintenance. Whirlpool equipment rooms shall be adequately ventilated and well drained.

SUBCHAPTER IV — WATER ATTRACTIONS

23. **Water Attractions**.

a. General. Any new construction or alteration of a water attraction or water attraction complex shall be designed and installed as specified under this subchapter.

b. Basic Principles.

(1) General.

(a) This subchapter is founded upon basic principles of generally accepted engineering practices. Some of the details of design, construction and installation may vary, but the basic engineering principles desirable and necessary to protect the health and safety of pool users and patrons shall be utilized by the department for situations not addressed in this subchapter.

(b) This subchapter is a modification of ANSI/NSPI-9, Standard for Aquatic Recreation Facilities (draft), taken from the Wisconsin Administrative Codes, National Spa and Pool Institute, 2111 Eisenhower Avenue, Alexandria, VA 22314; phone (703) 838-0083; webpage http://www.nspi.org.

(2) Materials. All water attractions and appurtenances shall be constructed of materials that meet all of the following:

(a) In the finished state and application, all materials shall be nontoxic to humans and the environment.

(b) All materials shall be impervious and non-abrasive.

(c) All materials shall withstand the design stresses so intended.

(d) All materials shall provide a watertight structure and have easily cleanable surfaces.

(3) Structural design. The structural design and materials used shall be in accordance with generally accepted industry standards and sound engineering practice.

(4) Protection.

(a) In areas subject to freezing, the pool shell and appurtenances, piping, filter system, pump and motor, and other components shall be designed and constructed to provide protection from damage due to freezing.

(b) Provisions shall be made for the relief of stresses which may occur as a result of unbalanced hydrostatic pressures.

(5) Surfaces. All surfaces intended to provide patron footing within pool basins shall be slip-resistant.

(6) Colors and finishes.

(a) Except as provided in Section 23, subparagraph b. (6) (b), all interiors shall be of light colors, patterns or finishes that will not obscure the existence or presence of objects or surfaces within a pool basin. Light in color is defined as having a value of 6.5 or greater on the Munsell color-order system.

(b) All demarcation lines shall be of contrasting color to the pool interior, but may not be of a thickness or color to obscure the existence or presence of objects or surfaces within the pool basin.

(7) Diving facilities. Water attractions which include diving apparatus shall conform with the requirements of Section 11.

(8) Barriers to access.

(a) All water attractions shall be protected by a fence, wall, building, enclosure or solid wall of durable material or any combination thereof.

(b) One (1) barrier may surround a pool complex or water attraction complex.

(c) For all natural or artificial barriers, the following shall apply:

1 Be constructed so as to afford no designed/intentional external handholds or footholds.

2 Be at least five (5) feet or 1.5 m in height and located at least three (3) feet or 91.4 cm from any rise in elevation.

3 Be equipped with a self-closing and positive self-latching closure mechanism at a height of a least forty-five (45) inches or one-hundred and fourteen (114) cm above the ground.

4 Be provided with closure-mechanism hardware for locking and located on the pool side and located at least three (3) inches or 7.6 cm below the top of the gate or barrier.

5 The gate or barrier shall have no openings greater than four (4) inches or 10.2 cm.

(d) Alternate means of barriers to access may be provided when approved by the department.

c. Dimensional Design.

(1) Obstructions. All water attractions shall be free of protrusions, extensions, means of entanglement or other obstructions that may cause the entrapment or injury of the patron.

(a) At no time shall interior basin walls be submerged during operation.

(b) All walls in basins shall not exceed eighteen (18) inches or 0.5 m in width.

(2) Dimensional tolerances. All construction deviations from design dimensions shall conform to Table 23-1.

TABLE 23-1
PERMITTED CONSTRUCTION TOLERANCES FOR WATER ATTRACTIONS

Design Requirement	Permitted Construction Tolerance (in inches, unless otherwise noted)
Length, overall	+-3 (7.6 cm)
Width, overall	+-3 (7.6 cm)
Depth, deep area [FN1]	+-3 (7.6 cm)
Depth, shallow area [FN2]	+-2 (5.1 cm)
Floor nozzle flushness	+-1/8 (3 mm)
Stair treads and risers	+- 1/2 (13 mm)
Waterline, pools with adjustable weir skimmers	+- 1/4 (6 mm)
Waterline, pools with non-adjustable skimming systems (i.e., gutters and zero-depth overflow trenches)	+-1/8 (3 mm)
Walls	+-3 degrees
Other dimensions not specified above	+-2 (5.1 cm)

FN1. As measured at a location measured from the pool wall equal to 60% of the nominal pool depth and at the location of the depth marking.
FN2. As measured 3 feet (91.4 cm) from the pool wall at the location of the depth marking.

(3) Floor slopes.

(a) All pool basins shall slope to the drain or the water evacuation area.

(b) For water attractions with water depths less than five (5) feet or 1.5 m, floor slopes shall not exceed 1:12, except in limited areas where the function of the water attraction requires greater slopes.

(c) For water attractions with water depths of five (5) feet or 1.5 m or more, floor slopes shall be measured from the point of the first slope change to the point of the deep end and shall not exceed 1:3.

(4) Wall to floor radius. Pool walls may be joined to the floor with a tangent radius. For areas of the water attractions having depths of less than five (5) feet or 1.5 m, the maximum radius shall be six (6) inches or 15.2 cm.

(5) Water depths.

(a) The water depth of all water attractions shall be established by the designer or manufacturer in consideration of the function of the pool, except where otherwise required by this chapter. For water depth requirements when a pool slide is installed, refer to Section 26.

(b) Activity pools having a patron accessible depth greater than five (5) feet or 1.5 m shall have a boundary line as specified in Section 11, subparagraph c.

(c) Markings for water depth shall be indicated in feet, inches, or feet and inches and when abbreviated so indicated as "FT" or "IN". Markings shall be plainly and conspicuously marked on the vertical pool wall, above the waterline where possible, and on the top of the coping or edge of the deck or walk next to the pool. Additional depth markings may also be indicated in metric.

(d) When additional markings are indicated in metric, "meters" shall be abbreviated as "M".

(e) Depth markers

1 All depth markers installed on vertical pool walls shall be located so as to be read from the waterside.

2 Depth markers installed on decks shall be located no greater than eighteen (18) inches or 0.5 m from the pool edge and positioned so as to be read while standing on the deck facing the water along the affected perimeter.

3 All depth markers installed on horizontal surfaces shall be of slip-resistant materials.

4 Depth markers shall be installed at the maximum and minimum water depths and at all points of slope change as specified in Section 11, subparagraph c.

5 Depth markers shall be installed around the perimeter of the water attraction at intervals no greater than twenty-five (25) feet or 7.6 m and at lesser intervals when indicating a change in water depth not to exceed two (2) feet or sixty-one (61) cm. Depth markers for irregularly shaped water attractions shall designate depths at all major deviations in depth as well as conform to the provisions in this paragraph.

6 The minimum height of depth marker characters shall be four (4) inches or 10.2 cm. Characters shall be clearly visible and of permanent contrasting color to the background on which they are applied.

7 Water attractions having depths of five (5) feet or 1.5 m or less shall indicate the diving prohibition by markers located on the deck at intervals of no greater than twenty-five (25) feet or 7.6 m.

(6) Design requirements. Design requirements as listed in Table 23-2 shall be applied to all water attractions under the scope of this subchapter, unless otherwise acceptable to the department.

TABLE 23-2
DESIGN REQUIREMENTS BY WATER ATTRACTION TYPE

Water Attraction Type*

Parameter	Activity	Leisure River	Plunge	Vortex	Wave
Access entry provisions	Limited by design	Limited by design	Slide only	Limited by design	Beach end
Maximum floor slope	1:12	1:12	1:7	1:12	1:12
Maximum allowed depth	NR	42 in. (1.1 m)	NR	42 in. (1.1 m)	NR

NR = Not Required.

* For pools not listed herein, contact the department.

d. Turnover Times.

(1) The maximum turnover times for water attractions subject to this subchapter shall be as listed in Table 23-3.

(2) For further explanatory information, refer to Section 63, subparagraph n.

TABLE 23-3
MAXIMUM TURNOVER TIME BY WATER ATTRACTION TYPE [FN5]

Water Attraction Type [FN6]	Turnover Time (in hours) [FN7]
Activity	4
Interactive play attraction	0.5
Leisure river	2
Plunge	1
Runout slide	1
Vortex	1
Wave	2

FN5. Calculate an average turnover time for combination vessels.
FN6. For pool types not listed herein, contact the department.
FN7. Based on flow and pressure drop with a clean filter condition.

e. Pool Deck Surfaces and Equipment.

(1) Deck surfaces.

(a) Deck surfaces shall be provided at all perimeter areas of water attractions where specified as entry or exit points.

(b) Deck surfaces shall be of non-toxic, natural or man-made, impervious materials. Other Ho-Chunk Nation regulatory agencies may have more stringent requirements.

(c) Decks, ramps, coping and similar step surfaces shall be of materials that are slip-resistant and easily cleanable.

(2) Deck requirements.

(a) Decks shall be designed and installed in accordance with generally accepted engineering practices.

(b) Special features in or on decks such as markers, logos, and brand insignias shall be of materials that are slip-resistant and easily cleanable.

(c) Stair risers and handrail requirements.

1 Stair risers for the deck shall be uniform and have a minimum height of four (4) inches or 10.2 cm and a maximum height of seven (7) inches or 17.8 cm. The minimum tread depth shall be eleven (11) inches or 27.9 cm. A handrail shall be provided for all stairs having three (3) or more risers including the riser to the deck.

2 The height of all handrails shall be located between thirty (30) and thirty-four (34) inches or seventy-six (76) and eighty-six (86) cm above the deck stairs. Handrails shall be located at the outside edge of stairs.

(d) Deck width requirements.

1 Except as provided in Section 23, subparagraphs e. (d) 2. & 3., a minimum usable deck width for any deck provided for public use shall be six (6) feet or 1.8 m.

2 The unobstructed deck width provided around deck equipment shall be a minimum of four (4) feet or 1.2 m. For this subdivision, deck equipment includes handrails, structural support columns, lifeguard chairs and play equipment.

3 The unobstructed deck between a water attraction with a basin with a water depth exceeding twenty-four (24) inches or sixty-one (61) cm and any wading pool or interactive play attraction shall be a minimum of twelve (12) feet or 3.6 m visible travel length.

(e) Slope of pool deck requirements.

1 The minimum slope of a pool deck shall be 1/8 inch per foot (1:96) for textured, hand-finished concrete decks and 1/4 inch per foot (1:48) for exposed aggregate concrete decks.

2 Decks shall be sloped to effectively drain either to perimeter areas or deck drains.

(f) Except for ramps, the maximum slope of all decks shall be 1/2 inch per foot (1:24).

(g) Gaps between pool decks and other decks or walkways.

1 The maximum gap between pool decks and other decks or walkways, including joint material, shall be 3/8 inches or 9.52 mm of horizontal clearance with a maximum difference in vertical elevation of 1/4 inch or six (6) mm.

2 Any gap wider than as specified in Section 23, subparagraph e. (2) (g) 1 shall be filled with suitable caulking material in accordance with the material supplier's specifications.

(h) Deck edges that may be contacted by pool patrons shall be radiused, tapered or otherwise relieved to minimize sharpness.

(3) Concrete decks.

(a) Concrete decks shall be designed and installed in accordance with generally acceptable engineering practices. This provision shall include, but is not limited to, the design and quality of a subbase when required, concrete mix design, reinforcing, and joints.

(b) Construction joints where pool coping meets concrete decks shall be watertight.

(c) Construction joints where pool coping meets concrete decks shall be installed to protect the coping and its mortar bed from damage as a result of the anticipated movement of adjoining decks.

(d) Control joints in concrete decks shall be provided to minimize the potential for cracks due to a change in elevations, separation of surfaces or movement of the slab.

(e) The area where pool decks join existing concrete work shall be protected by an expansion joint to protect the pool from the pressures of relative movements.

(4) Deck equipment.

(a) Testing of circulation system piping shall be performed before the pool deck is poured.

(b) Valves installed in or under a pool deck shall be covered and readily accessible for operation, service and maintenance.

(c) At least one (1) hosebibb shall be provided in the equipment room. An additional hosebibb shall be provided in each toilet facility, and at intervals along the deck so as to permit adequate cleaning using a maximum of one-hundred (100) feet or 30.5 m of hose. A hosebibb in the equipment room or dressing, shower and toilet facility may be used for deck cleaning if located where a door opens directly to the deck and so that no more than one-hundred (100) feet or 30.5 m of hose, when laid across the deck surface, is needed to reach all areas of the deck. All hosebibbs shall be protected against backsiphonage by proper installation of approved backflow prevention devices, as provided by the Department.

(d) Water-powered devices, such as but not limited to water-powered lifts, shall

have a dedicated hose bibb. Hoses for water-powered devices shall be so located so as not to create a tripping hazard.

f. Circulation Systems.

(1) System.

(a) Requirements.

1 A circulation system consisting of pumps, piping, return inlets and suction outlets, filters and other necessary equipment shall be provided for complete circulation of water.

2 The circulation system shall be separate for each basin.

3 A manifold discharge pipe connecting backwash piping is not considered an interconnection of the recirculation system.

4 Except as provided in Section 23, subparagraph f. (1) (a) 5, the circulation system shall not include slide or spray feature circulation.

5 A maximum of ten percent (10%) of the recirculation system rate may be provided for the lubrication of slides or spray features.

(b) The equipment shall be designed to turn over the entire pool water capacity as specified in Table 23-3. The system shall be designed to give the proper turnover time based on the manufacturer's recommendations regarding maximum pressure and flow of the filter in clean media condition. Water clarity shall be maintained in accordance with par. (d).

(c) Circulation system components that require replacement or servicing shall be easily cleanable and readily accessible for inspection, repair or replacement. Circulation system components shall be installed as specified by the manufacturer.

(d) Except as provided in Section 23, subparagraph f. (1) (e), circulation systems and equipment within the scope of ANSI/NSF 50, shall conform to ANSI/NSF 50, ETL sanitation listed or the equivalent. For more information on ETL listings, contact Intertek Testing Services (ITS), ETL Sanitation Listed, 8431 Murphy Drive, Middleton, WI 53562; phone: (608) 836-4400; fax: (608) 831-9279; web page: www.etlsemko.com.

(e) Systems and equipment within the scope of ANSI/NSF 50 shall not be required to bear the NSF endorsement seal if the manufacturer certifies the products are in compliance with ANSI/NSF 50.

(f) All circulation system piping shall comply with ANSI/NSF 50. All exposed piping shall be color coded or provided with permanent labels or tags for easy identification.

(g) Circulation system piping, other than that integrally included in the manufacture of the pool, shall be subject to an induced static hydraulic pressure test at fifty percent (50%) higher than design operation pressure for a one (1) hour period, but no less than twenty-five (25) psi. The test shall be performed before the deck is poured and the pressure shall be maintained through the deck pour.

(2) Water velocity.

(a) Water velocity in pool piping shall not exceed any of the following applicable velocities:

1 A maximum of ten (10) feet/second or 3.05 m/sec for pressure piping, other than copper piping.

2 A maximum of eight (8) feet/second or 2.44 m/sec for copper pressure piping.

3 A maximum of six (6) feet/second or 1.8 m/sec for suction piping.

4 A maximum of 1.5 feet/second or 0.4 m/sec for flow through for suction grates.

(b) The circulation system piping and related fittings shall be nontoxic and of material capable to withstand operating temperatures, pressures and conditions.

(c) Piping subject to damage by freezing shall be sloped to drain or be installed in such a manner to allow for winterizing.

(d) Equipment shall be installed to allow draining.

(3) Gauges.

(a) All filtration pumps shall be equipped with a vacuum or compound gauge on the suction side of the pump, a pressure gauge located downstream of the pump and upstream of the throttling valve.

(b) Flow meters measuring the rate of flow through the filter system with an appropriate range readable in gallons per minute (gpm) and accurate within ten percent (10%) actual flow shall be provided.

(c) Where zones with various turnover times are serviced by a single filtration system, flow meters shall be provided in the supply piping as required at locations to permit monitoring of the flow characteristics to each zone.

(d) Pump curves shall be used to confirm the flow characteristics.

(4) Filters.

(a) Filters shall comply with Section 14, subparagraph i. and this paragraph.

(b) Filters shall be designed and installed so that filtration surfaces are readily accessible for inspection, repair and replacement.

g. Pumps and Motors.

(1) Ratings and specifications.

(a) A pump and motor shall be provided for circulation of the pool water. Performance of all pumps shall meet the design conditions of flow required for recirculation and backwashing and all of the following, unless otherwise approved by the department.

1 The pump or pumps shall be capable of providing the design flow rate at a total dynamic head of fifty (50) feet for all vacuum filters.

2 The pump or pumps shall be capable of providing the design flow rate at a total dynamic head of seventy (70) feet for all pressure sand or cartridge filters.

3 The pump or pumps shall be capable of providing the design flow rate at a total dynamic head of eighty (80) feet for all diatomaceous earth filters.

(b) All electrical components and installations shall comply with the requirements of article 680 of the National Electrical Code (NEC).

(2) Intake strainers. For all pressure filter systems, a cleanable strainer or screen shall be provided upstream of the circulation pump.

(3) Location. Pumps and motors shall be readily accessible for inspection, repair and replacement as specified by the manufacturer.

(4) Safety. The design, construction and installation of the pumps and component parts shall provide safe operation as specified by the manufacturer.

(5) Mechanical seals. Where a mechanical pump seal is provided, components of the seal shall be corrosion-resistant and capable of operating under conditions normally encountered in pool operation.

(6) Design and operation. All pumps shall be designed by the manufacturer for the intended use.

(7) Flooded inlet provisions. Pumps located below the waterline shall have valves installed on suction and discharge lines. Pumps shall be so located for ease in maintenance and removal.

h. Return Inlets and Suction Outlets.

(1) Performance. Suction outlets and return inlets shall be provided and so arranged as to produce a uniform circulation of water and maintain uniform distribution of disinfectant throughout the water attraction. The circulation system shall be designed to accommodate one-hundred percent (100%) of the turnover time.

(2) Flow distribution.

(a) Suction system flow through the main drain and skimming systems each shall be designed to accommodate one-hundred percent (100%) of the circulated flow.

(b) When multiple systems are used in a single water attraction to meet this requirement, each subsystem shall proportionately comply with Section 23, subparagraph h. (1).

(c) Suction systems shall be designed with flow rates not exceeding the maximum design flow during normal operation.

(d) Except for reverse flow systems, twenty to twenty-five percent (20 to 25%) of the recirculated water shall be drawn through the main drain or drains.

(3) Inlets.

(a) All water attractions shall have a minimum of two (2) return inlets regardless of water attraction size.

(b) Additional Requirements for Basins and Leisure Rivers.

1 Basins, other than leisure rivers, shall have the number of return inlets based on at least one (1) additional return inlet per three-hundred (300) square foot or 27.9 m^2 water surface area, or fraction thereof.

2 Leisure rivers shall have a minimum of one (1) filtered water return point for every one-thousand (1,000) lineal feet or 300.5 m, or fraction thereof.

(c) Return inlets shall be sized and located to provide uniform distribution throughout the water attraction.

(d) Return inlets and bottom returns.

1 Return inlets from the circulation system shall be designed so as not to constitute a hazard to patrons.

2 Bottom returns shall be flush with the basin bottom or designed to prevent injury to patrons.

3 Bottom returns shall be located to have an area of influence described by a radius of ten (10) feet or 3.05 m.

(e) Wall inlet requirements.

1 Wall inlets shall be located to provide uniform distribution throughout the water attraction.

2 One (1) wall inlet shall be located for each ten (10) feet or 3.05 m of stair well width.

(4) Grates.

(a) Grates of protective devices for suction outlets shall conform to all of the following:

1 Grates on protective devices shall be designed to withstand the anticipated loading of flow velocity.

2 Grates on protective devices shall be installed as specified by the manufacturer.

(b) Drain openings in grates shall be 1/2 inch or 1.27 cm or less in width or diameter.

(5) Entrapment avoidance. The suction outlets shall be designed to protect against a suction entrapment, evisceration and hair entanglement hazard.

(6) Testing and certification. Suction outlets, other than skimmers, that measure less than eighteen (18) inches by eighteen (18) inches or three-hundred and twenty-four (324) sq. in. or 45.7 cm by 45.7 cm or 0.21 m^2 or do not have at least one (1) dimension that is at least twenty-four (24) inches or sixty-one (61) cm shall be provided with covers tested by a nationally recognized testing laboratory to comply with ASME/ANSI A112.19.8M.

(7) Outlets.

(a) Except as provided in Section 23, subparagraph h. (7) (b), a minimum of two (2) hydraulically-balanced, covered, suction outlets, per pump suction line shall be provided.

(b) One (1) outlet shall be allowed provided the outlet has at least one (1) dimension that is at least thirty-six (36) inches or 91.4 cm.

(c) Multiple sets of pump suction pipes shall be allowed to merge into two (2) or more common suction outlets provided the outlets are hydraulically balanced.

(d) The distance between the suction fittings shall be at least three (3) feet or 91.4 cm if the suction outlets are less than eighteen (18) inches by eighteen (18) inches or three-hundred and twenty-four (324) sq. in. or 45.7 cm by 45.7 cm or 0.21 m^2 or do not have at least one (1) dimension that is at least twenty-four (24) inches or sixty-one cm.

(e) See Section 63, subparagraph k. and l. for information on drain layout details.

(f) When dual suction outlets are provided, no piping or valve arrangement may be allowed that will isolate one (1) suction fitting as the sole source of fluid to the pump. The single pipe to a pump suction inlet may be valved to shut off the flow to the pump.

(g) Passage of ball requirement.

1 All grates shall have a maximum grate opening to prevent the passage of a 1/2 inch or 1.27 cm ball.

2 For wave pools, barriers shall be provided on caissons which prevent the passage of a four (4) inch or 10.2 cm ball.

(h) Main drain suction outlets shall be installed at the lowest point or points of the water attraction.

(8) Alternate designs. Other means, such as vacuum elimination devices, that produce equivalent protection against suction entrapment, evisceration and hair entrapment may be allowed. For additional information, refer to CPSC Guidelines for Entrapment Hazards: Making Pools and Spas Safer, (publication no. 363), U.S. Consumer Product Safety Commission, Office of Information and Public Affairs, Washington, D.C. 20207; webpage: www.cpsc.gov; e-mail: info@cpsc.gov.

(9) Vacuum fittings. The installation and use of vacuum fittings for new construction shall be prohibited.

(10) Drain provisions. There shall be a sump with a six (6) inch or 15.2 cm minimum depth or a drain at the lowest portion or portions of all water attractions for the purpose of complete draining. The drain grate shall comply with Section 23, subparagraph h. (4).

i. Perimeter Overflow Systems.

(1) Function. All basins shall be provided with surface skimming systems and shall be designed and constructed to skim the water surface within the operational parameters of the system's rim or weir device.

(2) Hazards.

(a) Skimming devices shall be designed and installed so as not to constitute a hazard to patrons.

(b) A skimmer cover located on a walking surface shall be securely seated, slip-resistant, of sufficient strength to withstand normal deck use and not constitute a tripping hazard.

(3) Automatic skimming devices. Except for constructed weirs, the following provisions shall be applicable to all surface skimming devices:

(a) Where automatic surface skimming devices are used as the sole overflow system, at least one surface skimming device shall be provided for each five-hundred (500) sq. feet or forty-five (45) m^2 or fraction thereof of the water surface area. Recessed areas such as stairs, swimouts and spas shall not be considered in the calculation. When skimmers are used, they shall be located to maintain effective skimming action.

(b) All circulation systems shall be designed to handle one-hundred percent (100%) of the rated circulation volume through skimmers.

(c) The flow rate shall be no less than three (3) gpm per skimmer per inch of weir width or 11.4 L/min. per twenty-five (25) mm of weir.

(4) Surface skimming.

(a) Acceptable provisions for surface-skimming systems shall be in accordance with Table 23-4.

TABLE 23-4
ACCEPTABLE SURFACE SKIMMING SYSTEMS

Pool Type	Surface Skimming Systems Accepted
Activity	May combine auto skimmers, zero depth trench, gutters as needed
Leisure river	Single or multiple skimmer devices for skimming flow [FN8]
Plunge devices	May combine auto skimmers, zero depth trench and perimeter
Sand bottom	In accordance with the functional class of the pool
Vortex	Skimmers are not allowed in the side area [FN8]

Wave	Zero depth trenches, such as but not limited to, skimmers, gutters and other perimeter devices

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FN8. Water movement in a water attraction moves surface water to a surface skimming point.

(b) When gutter skimming systems are used, they shall be connected to a circulation system with an adequate surge capacity to permit all phases of operation.

j. Electrical and Illumination Requirements.

(1) Components. All electrical wiring and equipment shall be installed in compliance with NEC.

(2) Artificial lighting. When operating at night or when open during periods of low natural illumination, artificial lighting shall be provided so that all areas of the pool, including the bottom main drains, are visible.

(3) Emergency illumination. Water attractions and water attraction complexes that operate during periods of low illumination shall be provided with sufficient emergency lighting to permit safe evacuation of the water attraction and water attraction complex, and securing of the area in the event of a power failure.

k. Heaters.

(1) Energy sources. Heating equipment using fossil fuels or alternative energy sources shall comply with the latest version of the International Mechanical Code.

(2) Equipment standards. Heaters shall be installed and tested to comply with the requirements under the latest version of the International Mechanical Code.for gas applications or the NEC for electrical applications. Heat pumps shall comply with the requirements under the latest version of the International Mechanical Codeand be accepted by a recognized testing facility. Heaters shall be sized and rated for specific use as specified by the manufacturer.

(3) Heater installation. Heaters shall be installed in accordance with Section 17.

l. Water Supply.

(1) Source water quality.

(a) The source water supply serving the pool shall meet the requirements as listed in Table 23-5.

(b) Refer to Section 63, subparagraph m. for information regarding plumbing treatment standards for source water quality.

(2) Makeup water quality. Makeup water to maintain the water level in all water attractions and water used as a vehicle for disinfectants or other pool chemicals, for pump priming or for other such additions shall be as provided in Table 23-5.

TABLE 23-5
PLUMBING TREATMENT STANDARDS

Intended Use	Plumbing Treatment Standards *******
1. Drinking, cooking, food processing, preparation and cleaning, pharmaceutical processing, and medical uses	NR 811 and 812 approved sources.
2. Personal hygiene, bathing, and showering, clothes washing.	NR 811 and 812 approved sources.
3. Automatic fire protection systems.	As acceptable by the Department.
4. Swimming pool makeup water.	NR 811 and 812 approved sources.
5. Swimming pool fill water.	Chapter III requirements.
6. Once through cooling water. **	pH 6 − 9 b < 30 mg/L BOD5 < 30 mg/L TSS < 200 fecal coliform cfu/100 mL > 1 mg/L and <10 mg/L free chlorine

	residual **
7. Subsurface infiltration and irrigation, using reuse as the source. ***	< 15 mg/L oil and grease < 30 mg/L BOD5 < 35 mg/L TSS < 200 fecal coliform cfu/100 mL ****
8. Subsurface infiltration and irrigation, using stormwater as the source. ***	< 15 mg/L oil and grease < 60 mg/L TSS
9. Surface or spray irrigation using stormwater and clearwater as the source. ***	< 10 mg/L BOD5 < 5 mg/L TSS
10. Surface irrigation except food crops, vehicle washing, toilet and urinal flushing, air conditioning, soil compaction, dust control, washing aggregate and making concrete *, ***, *****	pH 6 − 9 b < 10 mg/L BOD5 < 5 mg/L TSS No detectable fecal coliform cfu/100 mL > 1 mg/L and <10mg/L free chlorine residual. **
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11. Uses not specifically listed above.	Contact department for standards

* Refer to the department of agriculture, trade and consumer protection for commercial use.

** Applies only to wastewater treatment devices for reuse systems. Other equivalent disinfection methods may be approved by the department.

*** These requirements do not apply to the treatment of industrial wastewater or other wastewater discharges that are subject to a WPDES permit issued by the department of natural resources.

**** A 12−inch minimum separation of medium sand or finer material above high groundwater or bedrock.

***** Applies to reuse not stormwater use.

****** For stormwater, the plumbing treatment standards are based on an annual average. Evaluation of research to prove compliance with this table is based on the geometric mean of the data acceptable to the department or an equivalent method.

(3) Backflow protection. Connections to water supply systems shall be as specified in the Ho-Chunk Nation *Water Utility Ordinance* (3 HCC § 7).

(4) Over rim filler.

(a) An over-the-rim spout, if used, shall be located under a diving board, adjacent to a ladder or otherwise properly shielded so as not to create a hazard.

(b) The spout open end shall have no sharp edges and shall not protrude more than two (2) inches or 5.1 cm beyond the interior wall.

(c) The spout shall be separated from the pool water by an air gap at least six (6) inches or 15.2 cm or 1.5 pipe diameters from the pipe outlet to the rim, whichever is greater.

(5) Water level.

(a) All water attractions shall be installed such that the water level is within the specifications of the designer or manufacturer.

(b) For zero (0) depth entry without a surge tank, automatic fill shall be required.

(6) Pipe labeling. Pipe shall be labeled in accordance with chapter III and Section 16, subparagraph e.

m. Waste Water Disposal. Pool discharges shall be in accordance with the Ho-Chunk Nation *Water Utility Ordinance* (3 HCC § 7).

n. Sanitizing Equipment and Chemical Feeders.

(1) Equipment standards.

(a) Sanitizing equipment shall comply with the requirements of ANSI/NSF fifty (50) or ETL equivalent, and be capable of introducing a sufficient quantity of a sanitizer to maintain the appropriate levels in accordance with Chapter III of this Pool Ordinance (3 HCC § 8).

(b) Each water attraction shall include automation equipment to control the sanitizer feed and the pH adjusting chemicals. Such equipment shall be designed and installed to function in compliance Chapter III.

(c) Skimmer baskets shall not be used as chemical feeders.

(d) Chemical feed pumps shall be wired and installed so that they cannot operate without a return flow to properly disburse the chemical throughout the system as designed.

(2) Chemical feeder and control systems.

(a) All chemical feed and control systems shall be installed as specified by the manufacturer. The manufacturer's data control plate shall be affixed in compliance with Section 15, subparagraph a. (5).

(b) All chemical feed systems shall be installed so as to only operate when there is return flow to properly disburse the chemical throughout the water attraction as designed.

o. Safety Equipment.

(1) Handholds.

(a) All pools shall be provided with a handhold around their perimeter in areas where depths exceed five (5) feet or 1.5 m. Handholds shall be provided no farther apart than 3 1/2 feet or 9.6 m to include, but not be limited to, any one or a combination of the items listed in Section 23, subparagraph o. (1) (b).

(b) Coping, ledge or deck along the immediate top edge of the pool or a gutter lip immediately below the water level that provides a slip-resistant, flush surface of at least 4 inches (10.2 cm) minimum horizontal width or a raised hand-held edge and located at or not more than 12 inches (30.5 cm) above the waterline, ladders, stairs or seat ledges.

(2) Safety rope with floats.

(a) For activity pools, a safety rope with floats shall be located to separate pool areas not intended for general swimming, and located at the breakpoint.

(b) All safety ropes with floats shall be located no greater than one foot (0.3 m) to the shallow side of the breakpoint.

(c) For water attractions with a drop slide or walking pad, all safety ropes with floats shall be located so as not to constitute a safety hazard. This requirement applies to pad walks and slides in plunge pools.

(d) A safety rope with floats shall be located in wave pools to restrict access to the caisson wall.

(e) When provided, a rope and float line shall be securely fastened to wall anchors of corrosion-resisting materials and of a type that shall be recessed or have no projection that will constitute a hazard when the line is removed.

(f) When provided, a rope and float line shall be of sufficient size and strength to provide temporary support and a handhold for the user.

(3) Emergency shutoff. Wave pools, vortex pools and leisure rivers shall have a safety stop button located in the proximity of the pool for the purpose of stopping the water action.

p. Restroom and sanitary facilities. Sanitary facilities shall be provided in accordance with Section 19.

q. Patron Load. Patron load for the purpose of operational posting shall be determined by the maximum number of patrons for an individual water attraction calculated as fifteen (15) square feet or 4.5 m of water surface area for each patron. For the purpose of this requirement, the splash zone of any water attraction shall be included in the calculation of the water surface.

r. Entries, Exits, Pool Stairs, Swimouts, Underwater Benches and Special Features.

(1) Entry and exit locations.

(a) Locations for entry and exit shall be in accordance with Table 23-6 or as otherwise acceptable to the department.

(b) For accessibility information, refer to the final accessibility guidelines for recreational facilities, Federal Register, Vol. 67, No. 170, as published Tuesday, September 3, 2002. Requirements relating to swimming pools, wading pools and spas are found under ADAAG 15.8.

(c) Also refer to Chapter III for pool entrance and exit configurations relating to lifeguard and staffing functions.

TABLE 23-6
ENTRY AND EXIT LOCATIONS

Pool Type	Entry and Exit Points
Activity	Ingress/egress at any point in the pool but no greater than 40 feet (12.2 m) from any point.
Leisure river	Minimum of one entry; any number of controlled exits. [FN9]
Plunge	Entry prohibited from deck areas. Egress by ladders, steps or ramps as determined by designer, but at least a minimum of 50 feet (15.25 m) from any point.
Sand bottom	Ingress/egress in accordance with functional pool classification.
Vortex	Minimum of one entry/exit point.
Wave	Patron access prohibited at all areas except beach end. Side and end wall passage located to accommodate guard needs.
Other pools	Contact the department.

FN9. Controlled exits consist of stairs, steps and ladders.

(b) Where the distance from the pool floor to the top of the wall is twenty-four (24) inches or sixty-one (61) cm or less, such areas shall be considered as providing their own natural entry or exit point.

(c) All means of entry or exit shall be provided at the designed ingress and egress points of all pools and may consist of pool stairs, ladder, a ramp or a zero-depth entry.

(d) When provided, a secondary means of entry or exit shall consist of one (1) of the following: steps, stairs, ladders with grab rails, treads, ramps, zero-depth entries, swimouts, transfer walls or other designs that provide the minimum utility as specified in this section.

(e) When diving facilities are part of the attraction, entries, exits, pool stairs, ladders, underwater benches, special features and other accessories shall be located outside the minimum diving water envelope.

(2) Zero-depth and sloping pool entries.

(a) All sloping entries used as a pool entrance shall not exceed one to twelve (1:12) feet or eighty-three (83) mm/m.

(b) All sloping entries shall be permitted to be used in conjunction with steps and benches.

(c) All zero-depth and sloping entry surfaces shall be of slip-resistant materials to a water depth of at least eighteen (18) inches or 0.5 m.

(3) Stairs and ladders.

(a) All treads shall have slip-resistant surfaces.

(b) The design and construction of stairs into the shallow end and recessed pool stairs shall conform to the requirements of this paragraph.

(c) All risers at the centerline shall have a maximum uniform height of ten (10) inches or 25.4 cm.

(d) When stairs are located in a water depth over four (4) feet or 1.2 m, the lowest tread shall be no less than four (4) feet or 1.2 m below the deck.

(e) The bottom riser height shall be allowed to vary from the other risers as may be required to meet the floor.

(f) The leading edge of all steps shall be distinguished by a color contrasting with the color of the steps and pool floor.

(g) Protruding corners shall be rounded to a minimum radius of 1/2 inch or 1.27 cm.

(4) Handrails.

(a) Handrails shall be located between thirty and thirty-four (30 and 34) or seventy-six and eighty-six (76 and 86) cm above the ramp or step surface.

(b) Handrails shall be made of corrosion-resistant materials.

(c) Handrails shall be installed so they cannot be removed without the use of tools.

(d) The leading edge of handrails or handholds facilitating stairs and pool entry or exit points shall be located on the bottom tread.

(e) The outside diameter of handrails shall be a minimum of 1 1/4 inches or 2.8

cm and not to exceed 1-15/16 inches or 4.92 cm.

(f) The leading edge of deck-mounted handrails shall be located within three (3) inches or 7.6 cm horizontally from the vertical plane of the bottom riser.

(5) Pool ladder design and construction.

(a) All ladder and staircase treads shall have slip-resistant surfaces.

(b) Ladders shall provide two (2) handholds or two (2) handrails.

(c) There shall be a clearance of three (3) inches or 7.6 cm minimum and six (6) inches or 15.2 cm maximum between the pool wall and the ladder.

(d) The clear distance between ladder handrails shall be seventeen (17) inches or 33.2 cm minimum and twenty-four (24) inches or sixty-one (61) cm maximum.

(e) There shall be a uniform distance between ladder treads reflecting a seven (7) inch or 17.8 cm minimum distance and twelve (12) inch or 30.5 cm maximum distance.

(f) Ladder treads shall have a minimum horizontal uniform depth of two (2) inches or 5.1 cm.

(6) Recessed treads.

(a) All recessed treads shall have slip-resistant surfaces.

(b) Recessed treads shall have a uniform vertical spacing of no less than seven (7) inches or 17.8 cm and no greater than twelve (12) inches or 30.5 cm measured at the centerline.

(c) The vertical distance between the pool coping edge, deck or step surface and the uppermost recessed tread shall be nine (9) inches or 22.9 cm maximum.

(d) Recessed treads shall have a depth of no less than five (5) inches or 12.7 cm and width of no less than twelve (12) inches or 30.5 cm.

(e) Recessed treads shall drain into the pool.

(f) Recessed treads shall be provided with a handrail, grab rail or handhold on each side of the treads.

s. Underwater Seats, Benches, and Swimouts.

(1) Swimouts.

(a) Swimouts shall be located in a recessed area to eliminate any protrusion beyond the pool wall.

(b) The horizontal surface of swimouts shall be no greater than twenty (20) inches or 50.8 cm below the waterline.

(c) A minimum unobstructed surface equal to that required for the top tread of the pool stairs shall be provided in the swimout.

(d) When used as an entry or exit access, swimouts shall be provided with a step to meet the pool stair requirements.

(e) The leading edge of swimouts shall be visually set apart with a marking color to contrast with the swimout.

(f) Swimouts shall be allowed in the deep or shallow areas of the pool.

(2) Underwater seats and benches. Except for swim-up bar designs:

(a) Underwater seats and benches shall be located in a recessed area to eliminate any protrusion beyond the pool wall.

(b) The height of any underwater seat or bench may not exceed eighteen (18) inches or 0.5 m; the width of the bench seat may not exceed eighteen (18) inches or 0.5 m; the depth of the water above the bench seat may not exceed two (2) feet or sixty-one (61) cm or a two (2) inch or 5.1 cm leading edge of contrasting color.

(c) The surface of all underwater seats and benches shall be of a color in distinct contrast to the color of the surrounding pool basin or have a two (2) inch or 5.1 cm leading edge or contrasting boundary line.

(d) The words "bench below" shall be placed on the deck at the edge of the pool at the bench area in a color in distinct contrast to the deck background.

(e) Underwater seats and benches shall not be used as a required access entry or exit point.

(f) Underwater seats shall not be located in a deep area of the pool where diving equipment is installed.

(g) Underwater seats and benches are allowed in conjunction with pool stairs.

24. **Play Features**.

a. General.

(1) Structures and devices not intended for patron contact such as climbing, walking and hanging shall be either designed or supervised to prevent such contact.

(2) Rafts, tubes, noodles and other personal use devices shall not be subject to this section.

(3) For obstructions in wading pools, refer to Section 21.

b. In-Water Play Features.

(1) In-water play features permanently installed shall be subject to this subsection. Examples of in-water play features include, but are not limited to,
floating boats and trucks, floatable walks, floatables, spray pad features not
in conjunction with a pool or water attraction with a recirculation system and
other permanently installed features.

(2) Floating features and tethered play features.

(a) Floating features may not be installed in pools with water depths of less than thirty-six (36) inches or 91.4 cm.

(b) Except as provided in Section 24, subparagraph b. (2) (c), a minimum three (3) feet or 91.4 cm of water depth shall be maintained at least six (6) feet or 1.8 m from any tethered play feature.

(c) A tethered play feature may be located at least six (6) feet or 1.8 m of a wall when that portion of the wall is padded to a point six (6) feet or 1.8 m from the play feature. Padding need only cover the wall above the waterline.

(3) Floating play features shall be anchored in such a manner to restrict their movement to a range as established by the designer.

(4) The means of anchoring of tethered play features shall be configured in such a manner as to minimize circumstances of possible entrapment of patrons, bodies, hair, limbs or appendages when in contact with any element of the play feature or its anchors.
The use of jacketed chains or cables meets this requirement.

(5) All in-water play features shall be designed and installed to prevent injury to the user and constructed so as not to create a safety hazard.

(6) Pad walk requirements.

(a) When more than one (1) pad walk is located in the same pool basin, a minimum separation of ten (10) feet or 3.05 m between pad walks shall be provided.

(b) All deck or basin obstructions within four (4) feet or 1.2 m of a pad walk shall be padded or encased so as to protect pool patrons from abrasion, laceration or contusion.

(7) A minimum separation of ten (10) feet or 3.05 m between two (2) floatables, other than two (2) pads within a pad walk, shall be provided.

c. On-Deck Play Features. Play features permanently installed on decks shall be designed and installed to prevent injury to the user and constructed so as not to create a safety hazard. Examples of on-deck play features include basketball hoops, volleyball nets and other water games.

25. **Interactive Play Attractions**.

a. General.

(1) Interactive play attractions may be included with pool complexes, water attraction complexes, or as a single water attraction.

(2) When an interactive play attraction is added to a single pool, the facility becomes a water attraction complex as specified in Section 23.

b. Design and Materials.

(1) The structural design and materials used shall be in accordance with generally accepted industry practice. All parts of an interactive play attraction shall be designed and constructed so as to not pose a safety hazard.

(2) All materials for walking surfaces shall be slip-resistant.

(3) Splash zone and floor slope requirements.

(a) The splash zone shall be sloped to drain to the surge tank or pool within the same basin.

(b) The maximum floor slope to drain of the splash zone shall be one to twelve (1:12).

(c) All exterior walking surfaces shall be sloped to drain away from the splash zone.

(d) The minimum floor slope shall be 1/8 inch per foot.

(4) A minimum deck separation of twelve (12) feet or 3.6 m shall be provided between basins with water depths greater than twenty-four (24) inches or sixty-one (61) cm and the splash zone.

(5) Other deck requirements for water attractions do not apply to interactive play attractions.

c. Water Supply, Piping, Circulation and Filtration.

(1) General. All other applicable provisions under Section 23 not specified in this section shall apply.

(2) Water supply.

(a) The recirculation system shall be separate and not be interconnected with the feature pump system, unless otherwise approved by the department.

(b) All nozzles that spray from the ground shall be flush with the floor so as to not create a tripping hazard.

(c) The total water volume of a balance tank including associated piping shall be at a minimum of four (4) times the combined flow rate of all the attraction pumps and of a sufficient volume so as to allow operation through all cycles of filtration operation

(d) The recirculation system shall be separate from that of any other basin.

(e) All aboveground piping shall automatically drain. Gravity drains shall be of a capacity of at least one-hundred and twenty-five percent (125%) of the discharge.

(f) All filters shall comply with Section 14, subparagraph i.

(g) The turnover time shall be as listed in Table 23-3.

(h) The suction intake of the recirculation pump shall be located in the lowest point of the balance tank.

d. Other Requirements.

(1) Patron access points shall be provided as specified Section 23, subparagraphs b. (7) and o. (3).

(2) Fencing of an interactive play attraction is not required.

(3) Any plants or vegetation may not be located in the splash zone area.

SUBCHAPTER V — SLIDES

26. **Slides**.

a. General. All slides installed as an appurtenance to a public swimming pool or water attraction shall be designed, manufactured and installed so as to provide a safe and healthy environment for the rider and other occupants of the facility. For accessibility information, refer to the final accessibility guidelines for recreational facilities, Federal Register, Vol. 67, No. 170, as published Tuesday, September 3, 2002.

b. Design and Manufacturing.

(1) Pool slides, drop slides and waterslides over six (6) feet or 1.8 m in height from the slide entrance to the deck of the pool or water attraction, and incorporating towers to support riders shall be submitted to the department for structural review in accordance with Section 8, subparagraph b.

(2) Pool slides, drop slides and waterslides shall be submitted for functional review in accordance with Section 8, subparagraph b.

(3) The total water volume of a separate balancing tank serving runout slides shall be a minimum of two (2) times the combined flow rate of the pumps or of a sufficient volume based on velocity and time of the propulsion system and backwash requirements.

(4) Pool slides, drop slides and waterslides shall be so designed that parts with external surfaces that may come in contact with a person using the slide are assembled, arranged and finished so that they are smooth and continuous with and will not cut, pinch, puncture, or cause an abrasion to any person.

(5) All slide flumes shall be designed and constructed so as each person using the waterslide remains inside the flume path during normal use.

(6) All curves, turns, and tunnels on the path of a flume shall be designed and constructed as not to present a hazard to any person using the slide under normal use.

(7) Pool slides, drop slides and waterslides shall be designed to support the intended use.

(8) All stairs, platforms and elevated decks associated with pool slides, drop slides and waterslides shall conform to the UBC for guards, handrails and headroom.

(9) For slides without a lifeguard staffing plan, the maximum deck obstruction-width permitted shall be limited to ten percent (10%) of the pool perimeter with a maximum individual obstruction-width of twenty (20) feet or 6.1 m and a minimum pool perimeter separation between obstructions of at least twenty (20) feet or 6.1 m.

c. Installation. All slides shall be installed so as to comply with the installation parameters as specified in Table 26-1 and the following requirements where applicable:

(1) For children's slides, the following obstructions shall be permitted without a lifeguard staffing plan:

(a) The side view of the obstruction, as viewed from any point, shall be less than fifty (50) square feet or 15.25 sq. m.

(b) The square footage of the obstruction shall be measured to a height of six (6) feet or 1.8 m above the water line.

(c) Individual obstructions shall have at least a ten (10) foot or 3.05-m horizontal separation.

(d) No more than twenty percent (20%) of the pool basin shall be occupied by obstructions.

(e) For further information refer to Section 63, subparagraph o.

(2) For waterslides and runout slides, all closed curved flumes shall be a minimum of thirty-two (32) inches or 81.3 cm in diameter.

(3) For all other slides listed in Table 26-1, the slide terminus shall be designed to not allow riders to cross into the path of another rider.

(4) Pool slides, drop slides and waterslides and the structural supports shall be located to provide at least ten (10) feet or 3.05 m of clearance from any uninsulated overhead electric power line energized to more than fifty (50) volts, but less than or equal to fifty-thousand (50,000) volts. For lines energized to more than fifty-thousand (50,000) volts, the minimum clearance shall be increased 0.4 inch for each one-thousand (1,000) volts over fifty-thousand (50,000).

TABLE 26-1
INSTALLATION PARAMETERS BY SLIDE TYPE

Slide Type	Maximum Slide Height Measured From the Slide Entrance (in feet)	Slide Terminus Drop To Water	Water Depth Allowed for Slide Installation (in feet)	Minimum Clear Space In Front of Slide Terminus and Pool Wall (in feet)	Minimum Distance from Slide Flume or Entry to Side Obstructions unless protected (in feet)	Minimum Seperation Distance Between Slides in Same Structure Measured from Side of Sliding Surface, unless protected (in feet)	Maximum Overhang Distance for Deck-mounted Slides (Slide terminus extension into pool) (in feet)

Children's slide	≤ 4 to slide terminus	≤ 6	≤ 2	≥ 7.5	≥ 4	As per manufacturer's recommendation	N/A
Pool slide	≤ 4 to deck	≤ 6	≤ 2	≥ 7.5	≥ 4	As per manufacturer's recommendation	N/A
Pool slide, discharging into water ≤2 feet deep	> 4 and ≤6 to deck	≤ 6	≤ 2	≥ 10	≥ 5	As per manufacturer's recommendation	2
Pool slide, discharging into water ≤2 feet deep	> 6 to deck	Not Permitted					
Pool slide, installed in water ≥ 3 feet deep	≤ 6	≤ 6	≥ 3	≥ 15	≥ 5	≥ 5	≤ 2
Pool slide, installed in water ≥ 3 feet deep	> 6	≤ 6	≥ 3	≥ 20	≥ 5	≥ 5	No Maximum
Drop slide, short drop	No Limitation	20 to < 30[b]	3.5 to 6 [b]	≥ 15	≥ 5	≥ 5	No Maximum
Drop slide, long drop	No Limitation	30 to 60	6 to 12 [b]	≥ 15	≥ 5	≥ 5	No Maximum
Waterslide[c]	No Limitation	≤ 6 or as per manufacturer's recommendation	≥ 3	≥ 20	≥ 5	≥ 5	No Maximum
Runout Slide	No Limitation	N/A	N/A	For deceleration area, as per manufacturer's recommendation	≥ 5	≥ 3	N/A

N/A = not applicable; ≥ = greater than or equal to; ≤ = less than or equal to.

[a] Slide installation as per manufacturer's requirements if more stringent. For slide types not specifically listed in this table, contact the department.

[b] Interpolation would be used for increasing drop and increasing depth proportionally.

[c] Water slides with a drop shall comply with drop slide requirements in this table.

[d] No minimum separation distance where slide exit prevents exiting over adjacent slide path.

d. Slide Flume Water.

(1) Except for waterslides, water for flume lubrication shall be a maximum of ten percent (10%) of the recirculation flow.

(2) The balance tank for runout slide flume lubrication systems shall be at a minimum of two (2) times the combined flow rate of the water attraction pump and of a sufficient volume so as to allow operation through all cycles of filtration operation.

SUBCHAPTER VI — INCORPORATION OF STANDARDS

27. **Adoption of Standards**. The standards referenced in Tables 27-1 to 27- 2 are hereby incorporated by reference into this chapter. The tables in this section provide a comprehensive listing of all of the standards adopted by reference in this code. For requirements or limitations in how these standards are to be applied, refer to the code section that requires compliance with the standard.

TABLE 27-1

ANSI	**American National Standards Institute, Inc.** **11 W 42nd Street** **New York, New York 10036** **Phone: (212) 642-4980** **Web: www.ansi.org/public/std_info.html**

Standard Reference Number	**Title**
ANSI/NSF 50-2001	Circulation System Components and Related Materials for Swimming Pools, Spas/Hot Tubs

TABLE 27-2

ASME	**American Society of Mechanical Engineers** **3 Park Avenue** **New York, New York 10016-5990** **Phone: (800) 843-2763** **Web: www.asme.org/catalog/**

Standard Reference Number	**Title**
ANSI/ASME A112.19.8M-19 87 (R1996)	Suction Fittings for Use in Swimming and Wading Pools, Spas, Hot Tubs, and Whirlpool Bathtub Appliances

CHAPTER III — SAFETY, MAINTENANCE, AND OPERATION OF PUBLIC POOLS AND WATER ATTRACTIONS

SUBCHAPTER I — ADMINISTRATION

28. **Purpose**. This chapter is promulgated to regulate the maintenance and operation of public pools and water attractions in order to protect the health and safety of the Ho-Chunk Members, patrons at the Nation's facilities, and the public in general.

29. **Applicability**.

a. This chapter applies to the operation of public pools and water attractions.

(1) A pool or water attraction is a public pool or water attraction if it is installed in a "place of employment," as defined in Section 29, subparagraph a.(1)(a), or in a "public building," as defined in Section 29, subparagraph a. (1)(b) or if it serves or is installed for use by the Ho-Chunk Nation.

(a) "Place of employment", for purposes of Section 29, a. (1) only includes every place, whether indoors or out or underground and the premises appurtenant thereto where either temporarily or permanently any industry, trade, or business is carried on, or where any process or operation, directly or indirectly related to any industry, trade, or business, is carried on, and where any person is, directly or indirectly, employed by another for direct or indirect gain or profit, but does not include any place where persons are employed in private domestic service which does not involve the use of mechanical power or in farming.

(b) "Public building", for purposes of Section 29, a. (1) only, means any structure, including exterior parts of such building, such as a porch, exterior platform, or steps providing means of ingress or egress, used in whole or in part as a place of resort, assemblage, lodging, trade, traffic, occupancy, or use by the public or by three (3) or more tenants.

(2) A pool or water attraction is not a public pool or water attraction if it serves fewer than three (3) individual residences, unless it is used on a regular basis by persons other than the residents.

b. Unless the context clearly indicates otherwise, references to "pool" in these rules means a public pool or water attraction.

30. **Approved comparable compliance**.

a. The department may approve an alternative to a method, practice, material, equipment or design required under this chapter that will not be contrary to public health, safety or welfare, if the department is provided with satisfactory proof that the alternative will achieve results which are closely equivalent to the results of literal application of the requirement.

b. An alternative approved under Section 30, subparagraph a. may, at the department's discretion, be made conditional for any of the following:

(1) A defined period of time.

(2) Experimental or trial purposes.

31. **Definitions**. In this chapter:

a. "Activity pool" means a water attraction with a depth greater than twenty-four (24) inches or 61 centimeters designed primarily for play activity that uses constructed features and devices including pad walks, flotation devices and similar attractions.

b. "Actual patron load" means the number of patrons in the water.

c. "Adult" means a person eighteen (18) years of age or older.

d. "Agent" means the entity or subcontractor authorized by the Department to issue permits to and make investigations or inspections of public pools and water attractions.

e. “Amenity pool” means any pool feature with a minimum square foot water surface of one-hundred (100) square foot and a maximum square foot water surface of eight-hundred and fifty (850) square foot. These pools shall only be used in conjunction with a “Tourist Rooming House” operation for “patron(s)” use of “private room guest(s)” only and not accessible by the general public and/or not accessible to an “open swim,” unless life guards or attendants are present during the “open swim” time periods.

f. "Approved" means acceptable to the department, based on its determination of conformance with this chapter and good public health practices.

g. "Attendant" means a person trained to operate a pool, including slides and other appurtenances, and control patrons in a safe and orderly manner.

h. "Breakpoint chlorination" means establishing a hygienic environment in the pool by

raising the free available chlorine level to ten (10) times the combined chlorine level to achieve the destruction of chloramines.

i. "Certified water attraction operator" means an operator who is certified by successful completion of at least one (1) of the following training courses:

(1) The National Swimming Pool Foundation certified pool operator course.

(2) The National Recreation and Park Association aquatic facility operator course.

j. "CPR" means cardiopulmonary resuscitation.

k. "Children's slide" means a slide that has a maximum height of four (4) feet or 1.2 meters as measured vertically from the slide entrance to slide terminus, and located in less than twenty-four (24) inches or sixty-one (61) centimeters of water.

l. "Cold soak pool" means a pool that uses cold water for therapy.

m. "Combination pool" means a pool that is used for swimming and diving.

n. "Current pool" means a pool that creates a current for the purpose of exercise.

o. "Deck" means the approved, unobstructed walking surface immediately adjacent to a pool.

p. "Deep portion" means a water depth greater than 5.5 feet.

q. "Department" means the Ho-Chunk Nation Environmental and Public Health Division of the Department of Health & Social Services.

r. "Diving pool" means a pool used exclusively for diving.

s. "Drop slide" means a slide where the terminus is located twenty (20) inches or 50.8 centimeters or more above the water level.

t. "Engineer" means a registered professional engineer licensed in the State where the pool is physically located.;.

u. "Entry access point" means the area in which a patron enters a water attraction.

v. "Erosion feeder" means a chemical feed device in which powder, tablets, briquettes, or sticks are placed in a container and through which a water stream is passed, eroding and dissolving the chemical.

w. "Exercise pool" means a pool of shallow depth that operates with or without a current. Exercise pools are usually associated with health spas.

x. "Filter aid" means finely powdered diatomaceous earth or similar approved material used to coat a septum type filter.

y. "Flume" means that part of a slide within which sliding takes place.

z. "Free chlorine residual" means the amount of hypochlorous acid remaining in the water as determined by a diethyl-p-phenylene diamine test kit or approved equivalent.

aa. "Injury or illness report" means the written record of all facts regarding an accident resulting in bodily harm associated with a pool.

bb. "Interactive play attraction" means a water attraction, including manufactured devices using sprayed, jetted or other water sources contacting patrons and not incorporating standing or captured water as part of the patron activity area. Splash pads and spray pads are examples of interactive play attractions.

cc. "Leisure river" means a channeled flow of water of near-constant depth in which the water is moved by pumps or other means of propulsion to provide a river-like flow that transports patrons over a defined path. A leisure river may include play features and devices. A leisure river may also be referred to as a tubing pool or a current channel.

dd. "Lifeguard" means a person holding all of the following certifications:

(1) Lifeguard certification, limited to one or more of the following:

(a) A current American Red Cross Lifeguard Training certificate.

(b) A Young Men's Christian Association Lifeguarding certificate.

(c) An International Lifeguard Training Program certificate.

(d) National Aquatic Safety Company Lifeguard Training Program. CPR certification through this program is only valid for lifeguards working at a certified National Aquatic Safety Company Lifeguard Training Program facility with current certification.

(e) Other lifeguard certification approved by the department.

(2) First aid certification, limited to one (1) or more of the following:

(a) A standard first aid certificate from the American Red Cross.

(b) Other first aid certification approved by the department.

(3) CPR, limited to one (1) or more of the following:

(a) A certificate from the American Red Cross "CPR for the Professional Rescuer" course.

(b) A certificate from the American Heart Association "CPR for the Healthcare Professional".

(c) A certificate from the American Safety and Health Institute "CPR Pro-Professional Level CPR/AED".

(d) A certificate from American Academy of Orthopedic Surgeons/Emergency Care and Safety Institute Professional Rescuer CPR".

(e) Other CPR certification approved by the department.

ee. "Lifeguard and attendant staffing plan" means a written description on how lifeguards and attendants will be used at pools.

ff. "Material safety data sheet" means written information that details the hazards associated with a chemical and gives information on its safe use.

gg. "Non-tethered floatable" means a floatation device added to a pool that is not tethered to the pool basin, allowing movement of the device around the water. Rubber tubes in leisure rivers and swim wings are not considered non-tethered floatables.

hh. "NSF" means National Sanitation Foundation.

ii. "Operator" means the Ho-Chunk Nation, any Limited Liability Company formed

pursuant to the Ho-Chunk Nation *Limited Liability Company Act* (5 HCC § 3), owner of a pool, or the person responsible to the owner for the operation of a pool, including the mechanical systems operations of the pool.

jj. "Owner" means the Ho-Chunk Nation, a business entity of the Ho-Chunk Nation, a business entity that the Ho-Chunk Nation has formed a joint partnership with or similar business arrangement, any Limited Liability Company formed pursuant to the Ho-Chunk Nation *Limited Liability Company Act* (5 HCC § 3), or entity as determined by the Department.

kk. "Pad walk" means a tethered floatable under rope and netting in an activity pool that allows a patron to cross the water using his or her hands.

ll. "Patron" means a user of a pool.

mm. "Patron load" means the number of patrons in a body of water of a pool.

nn. "Person" means an individual, partnership, association, firm, company, corporation, Nation, a business entity of the Ho-Chunk Nation, a business entity that the Ho-Chunk Nation has formed a joint partnership with or similar business arrangement, any Limited Liability Company formed pursuant to the Ho-Chunk Nation *Limited Liability Company Act* (5 HCC § 3),, whether tenant, owner, lessee or licensee, or the agent, heir or assignee of any of these.

oo. "Plunge pool" means a pool with a depth of greater than twenty-four (24) inches or sixty-one (61) centimeters, located at the exit end of a waterslide flume and intended and designed to receive a patron emerging from the flume.

pp. "Pool and water attraction area" means, in an outdoor facility, the pool or water attraction and the area within the basin's enclosure and, in an indoor facility, the pool or water attraction and the required deck as specified Section 12.

qq. "Pool slide" means a slide where the drop from the slide terminus to water is less than twenty (20) inches or 50.8 centimeters and the flume carries less than one-hundred (100) gallons of water.

rr. "Pool" means a structure, basin, chamber or tank, and appurtenant buildings and equipment, used for wading, swimming, diving, water recreation or therapy. Types of pools include pools used for swimming, amenity pools, combination pools, diving pools, exercise pools, experiential pools, mobile pools, therapy pools, wading pools, whirlpools, and cold soak pools.

ss. "Responsible supervisor" means a person designated by the operator to maintain compliance with regulations governing safety and sanitation of a pool or water attraction, a pool slide, or a waterslide.

tt. "Run-out slide" means a water slide where the rider does not exit into a plunge pool,

but has a deceleration area that permits the patron to stop before exiting the slide flume.

uu. "Slide terminus" means the last ten (10) feet or 3.05 meters of a slide flume discharging into a pool or water attraction.

vv. "Superchlorination" means the addition of an oxidizing product such as chlorine to pool water to raise the level of the oxidizer to raise the level of oxidizer to at least ten (10) ppm. "Superchlorination" is sometimes referred to as "superoxidation".

ww. "Tethered floatable" means a play item or floatation device that is affixed to the basin of a pool to restrict movement of the item.

xx. "Unauthorized access" means the entrance of a person into a restricted area without permission of the operator or the operator's designated representative.

yy. "Therapy pool" means a pool used for medically administered physical therapy.

zz. "Turnover time" means the time for a given volume of water to pass through the recirculation system.

aaa. "Vanishing edge pool" means a pool that has no above-water line wall on one (1) or more sides where water spills over the edge, and there is no adjacent deck.

bbb. "Vortex pool" means a water attraction that is equipped with a method of transporting water in the basin for the purpose of propelling patrons at speeds dictated by the velocity of the moving stream.

ccc. "Wading pool" means a shallow pool having a maximum depth of twenty-four (24) inches or sixty-one (61) centimeters and intended for children's play.

ddd. "Water attraction" means a public facility with design and operational features that provide patron recreational activity other than conventional swimming and involves partial or total immersion of the body. Types of water attractions include activity pools, interactive play attractions, leisure rivers, plunge pools, vortex pools, vanishing edge pools, waterslides, run-out slides, drop slides, pool slides, wave pools, zero-depth entry pools, and any public pool with play features except wading pools.

eee. "Water attraction complex" means a facility where a water attractions are located within a(n) enclosure(s) or room(s) with any combination of four (4) or more water attraction/s or public swimming pool(s).

fff. "Waterslide" means a slide where a water flow of one-hundred (100) gallons of water per minute or more is intended to carry a rider down a flume.

ggg. "Wave pool" means a water attraction designed to simulate breaking or cyclical

waves for the purposes of surfing or general play.

hhh. "Whirlpool" means a small pool, sometimes called a "spa", which uses higher temperature water than other pools and may include a water agitation system.

iii. "Zero-depth entry pool" means a water attraction having a sloped entrance to where the water depth is zero (0) inches at the shallowest point.

32. **Permits**.

a. Permit Required.

(1) No pool may be opened to the public until the owner of the pool has obtained a permit from the department or its agent by submitting an application under sub. (4) and paying the applicable fee specified in Section 32. A separate permit is required for each pool basin. This provision shall not be applicable to pools opened prior to the Legislature passing this *Pool Ordinance* as specified in its Legislative History.

(2) If any one (1) of the following circumstances applies, a new initial permit is required, and the pool may not be opened to the public until the department has issued a new permit:

(a) A pool for which a permit has been issued is later modified into a different pool type.

(b) A permit holder sells or otherwise transfers ownership or operation of a pool to another person, except as provided in Section 32, subparagraph c.

b. Permit Duration and Renewal.

(1) Each permit issued under this chapter expires on June 30, except that a permit initially issued during the period beginning on April 1 and ending on June 30 expires on June 30 of the following year.

(2) Each permit shall be renewed annually as provided Section 32, subparagraph d. (2).

c. Transferability of Permits.

(1) No permit issued under this chapter is transferable from one premise to another.

(2) Except as approved by the Ho-Chunk Nation Legislature, no permit issued under this chapter is transferable from one person or entity to another.

d. Permit Application.

(1) Initial Permit. Application for an initial or new permit shall be made on an application form furnished by the department and shall be accompanied by all of the following:

(a) The applicable fees specified under Section 33 and any fees previously due to the department or its agent.

(b) Proof that the department under Section 7, a. has approved plans and specifications for the pool, including modifications. For purposes of the preceding sentence if the pool plans were already approved prior to the passage of this Ordinance that approval shall suffice.

(c) The completed final inspection report and approval from the department.

(d) A statement from an engineer who worked on the pool indicating that it was completed in accordance with the pool's construction plan under Section 7.

(e) Information, as determined by the department, indicating that the pool will be maintained and operated in compliance with applicable federal and Ho-Chunk Nation laws and that rules have been implemented for the operation of the pool that will protect the health, safety, and welfare of the public.

(2) Renewal Permit. Application for a renewal permit shall be made on an application form furnished by the department and shall be accompanied by all of the following:

(a) Payment of the applicable permit fee specified Section 33 before the expiration date of the permit.

(b) If payment is not made before the expiration date of the permit, the late fee specified in Section 33, subparagraph a. (3) in addition to the permit fee.

(c) Information, as determined by the department, indicating that the pool will be maintained and operated in compliance with applicable federal and Ho-Chunk Nation laws and that rules have been implemented for the operation of the pool that will protect the health, safety, and welfare of the public.

e. Department Action on Permit Application.

(1) The department shall issue or deny a permit within thirty (30) days after receiving a complete application, all applicable fees, and the other information required under Section 32, subparagraph d.

(2) The initial issuance, renewal or continued validity of a permit issued under this subsection may be conditioned upon the requirement that the permittee correct, within a period of time specified, a violation of:

(a) This chapter; or

(b) The Department of Business or owner conducting, maintaining, managing, or operating a swimming pool without being issued a permit**;**

(3) If the condition, outlined in Section 32, subparagraph e. (2), is not met within the specified time, the permit is void. No person may operate a pool after a permit has been voided under this paragraph, and any person who does so shall be subject to the following penalties:

(a) Anyone who violates this section or any rule of the department under this section shall be fined not less than twenty-five dollars ($25) nor more than two-hundred and fifty dollars ($250). Anyone who fails to comply with an order of the department shall forfeit ten dollars ($10) for each day of noncompliance after the order is served upon or directed to him or her. The department may also, after a hearing under Section 36, refuse to issue a permit under this section or suspend or revoke a permit under this section for violation of this section or any rule or order the department issues to implement this section.

(b) An owner whose permit is voided under this subsection may appeal the decision under Section 36.

(4) The department may refuse to issue or renew a permit to operate a pool under any of the following circumstances:

(a) The department has not conducted a pre-inspection of a pool for which an initial or new permit is required under Section 32, subparagraph a.

(b) The owner of a pool has not corrected a condition for which the department has issued a written safety-related order.

(c) All applicable fees under Section 13 have not been paid, including the permit fee, pre-inspection fee, re-inspection fee, or other applicable fees.

(d) The owner has modified, repaired or maintained the pool in a manner that is not in accordance with what the department recognizes as safe practice.

(e) The owner, applicant, or permit holder has failed to provide the department with information required under Section 32, subparagraph d.

(f) The owner or applicant has violated this chapter, or any other section of a Ho-Chunk Nation Law, provided such violation is related to the operation of the pool.

(g) If the department denies an application for a permit, the applicant shall be given reasons, in writing, for the denial and information regarding appeal rights under Section 36.

f. Voided Permit for Failure to Pay Fees. If an applicant or owner fails to pay all applicable fees, late fees and processing charges under Section 17 within fifteen (15) days after the applicant or owner receives notice of an insufficiency under Section 17 (b), or within forty-five (45) days after the expiration of the permit, whichever occurs first, the permit is void. An owner whose permit is voided under this subsection may appeal the decision Section 36. In an appeal concerning a voided permit under this subsection, the burden is on the permit applicant or owner to show that the entire applicable fees, late fees and processing charges have been paid. During any appeal process concerning a payment dispute, operation of the pool is deemed to be operation without a permit and is subject to the fees under Section 17, subparagraph a. (5) in addition to the fees otherwise due, unless the applicant or owner meets its burden of proof under this subsection.

g. Permit Posting. A permit shall be posted in a place visible to the public. A permit may not be altered or defaced.

33. **Fees**.

a. The fees contained in Section 33, subsection b. shall only be charged to the owner of the pool upon the following conditions:

(1) The Supervisor of the Ho-Chunk Nation Environmental and Public Health Division of the Department of Health and Social Services makes a written determination that his or her department has the capability to enforce and collect the fees outlined in Section 33, subsection b.

(2) The written determination outlined in Section 33, subparagraph a. (1) is submitted to the Ho-Chunk Nation Legislature and it passes a Resolution to implement the charging of the fees contained in Section 33 b.

b. Types of Fees.

(1) Pre-inspection fee. If the requirements of Section 33, subparagraph a. are satisfied, the owner of a pool shall pay the applicable pre-inspection fee listed in Table 33-1 to the department before an initial or new permit is issued under Section 16, subparagraph a.

(2) Permit fee. If the requirements of Section 33, subparagraph a. are satisfied, the owner of a pool shall pay the applicable permit fee listed in Table 33-1 to the department for each pool that the operator applies for a permit to operate under Section 16, subparagraph a. or b**.**

(3) Late fee. If the requirements of Section 33, subparagraph a. are satisfied and if the permit fee for a permit renewal is not paid before the expiration date of the permit, the owner of the pool shall pay to the department a late fee of seventy-five dollars ($75) in addition to the renewal permit fee.

(4) Re-inspection fee. If the requirements of Section 33, subparagraph a. are satisfied and if the department conducts a re-inspection of a pool under Section 34, subparagraph a. (2) (a) and (2), the owner shall pay to the department the applicable re-inspection fee listed in Table 33-1**.** The department shall assess an additional fifty dollars ($50) fee for any additional re-inspection conducted under Section 34, subparagraph a. (2) (d).

(5) Fees for operating without a permit. If the requirements of Section 33, subparagraph a. are satisfied, any pool found to be operating without a permit shall pay to the department an amount equal to the annual permit fee, in addition to all applicable fees and any processing charges under Section 33, f. In addition, anyone operating a pool without a permit is also subject to a fine of not less than twenty-five dollars ($25) nor more than two-hundred and fifty dollars ($250).

(6) Duplicate permit. If the requirements of Section 33, subparagraph a. are satisfied, the department shall charge the operator of a pool ten dollars ($10) for a duplicate permit.

TABLE 33-1
FEE SCHEDULE (ONLY APPLICABLE IF THE REQUIREMENTS OF SECTION 33, SUBPARAGRAPH a. ARE SATISFIED)

Type of Facility	Permit Fee	Pre-Inspection Fee	Re-Inspection Fee
Pool FN1	$150	150	75
Water Attraction FN2	$175	175	75
Water Attraction, with up to 2 pool slides/waterslides per basin	$250	250	125
Waterslide or Pool Slide per basin	$150	150	75

FN1. Including swimming, whirlpool, wading, therapy, exercise, cold soak, mobile, combination, diving pools, and experimental pools.
FN2. Including activity pools, interactive play attractions, leisure rivers, plunge, vortex, vanishin g edge, and wave pools.

34. **Enforcement**.

a. Inspections and Access to the Premises.

(1) Inspections. An authorized employee of the department or individual granted authority by the department, upon presenting proper identification, may enter any pool area, including the recirculation equipment and piping area, at any reasonable time, for any of the following purposes:

(a) To inspect the pool.

(b) To determine if there has been a violation of this chapter or if the department believes that the Department of Business is conducting, maintaining, managing, or operating a swimming pool without being issued a permit.

(c) To determine compliance with previously written violation orders.

(d) To secure samples or specimens.

(e) To examine and copy relevant documents and records, provided such information is related to the operation of the pool.

(f) To obtain photographic or other evidence needed to enforce this chapter.

(2) Re-inspections.

(a) The department or individual granted authority by the department may re-inspect a pool whenever an inspection or the investigation of a complaint reveals the existence of a violation that is potentially hazardous to the health and welfare of patrons or employees of the pool.

(b) A re-inspection shall be scheduled to allow the owner a reasonably sufficient time to correct the deficiencies.

(c) A re-inspection fee shall be charged for the re-inspection according to Table 33-1, or applicable charges as determined by an agent of the department.

(d) If an additional re-inspection is required because a violation has not been corrected in the scheduled time, the department shall assess the owner an additional fifty dollars ($50) reinspection fee as authorized under Section 33, subparagraph a. (4), and the department may order the owner to show just cause why the permit should not be suspended or revoked under Section 35.

b. General Orders to Correct Violations.

(1) If upon inspection of a pool, the department or individual granted authority by the department to make inspections finds that the pool is not designed, constructed, equipped or operated as required under Chapter II and this chapter, the department or agent shall issue a written order to correct the violation. The order shall specify the correction needed for compliance and the time period within which the correction should be made. The time period specified in the order may be extended at the discretion of the department or individual granted authority by the department to make inspections.

(2) If the order to correct violations is not carried out by the expiration of the time period stated in the order, or any extension of time granted for compliance, the department or individual granted authority by the department to make inspections may issue an order under Section 35 to suspend or revoke the permit to operate the pool.

(3) Any person who fails to comply with an order of the department shall forfeit ten dollars ($10) for each day of noncompliance after the order is served upon or directed to him or her. A person may appeal a forfeiture under Section 36.

c. Temporary Orders.

(1) Whenever the department or agent has reasonable cause to believe that an immediate danger to health exists as a result of an inspection under Section 34, subparagraph a., the department or agent may issue a temporary order without advance notice or hearing to do any of the following:

(a) Prohibit the continued operation or method of operation of specific equipment.

(b) Require the premises to cease operations and close until remedies are applied which eliminate the immediate danger to health.

(2) Impact of a Temporary Order

(a) A temporary order shall take effect upon delivery to the operator or responsible supervisor. Except as provided in Section 34, subparagraph c. (3), the temporary order shall remain in effect for fourteen (14) days from the date of delivery, but a temporary order may be re-issued for one (1) additional fourteen (14) day period if necessary to complete any analysis or examination of samples, specimens, or other evidence.

(b) No operation or method of operation prohibited by the temporary order may be resumed without the approval of the department or agent until the order has terminated or the time period specified in Section 34, subparagraph c. (2) (a) has expired, whichever occurs first. If, upon completed analysis or examination, the department or agent determines that construction, sanitary condition, operation or method of operation of the premises or equipment does not constitute an immediate danger to health, the department or agent shall immediately notify the owner, operator or responsible supervisor in writing and the temporary order shall terminate upon receipt of the written notice.

(3) If the analysis or examination shows that the construction, sanitary condition, operation or method of operation of the premises or equipment constitutes an immediate danger to health, the department or agent, within the effective period of the temporary order specified in Section 34, subparagraph c. (2) (a), shall provide written notice of the findings to the owner, operator or responsible supervisor. Upon receipt of the notice, the temporary order remains in effect until a final decision is issued under Section 36, subparagraph b. The notice shall include a

statement that the facility has a right to request a hearing under Section 34 within fifteen (15) days after issuance of the notice.

(4) If the Department of Business or owner fails to comply with a temporary order issued by the department it shall forfeit ten dollars ($10) for each day of noncompliance after the order is served upon or directed to the Department of Business or owner. The Department of Business or owner may be fined not more than ten thousand dollars ($10,000). The Department of Business or owner may appeal a forfeiture under Section 36.

35. **Suspension or Revocation of Permit**. The department may, after a hearing under Section 36, suspend or revoke a permit for violation of this chapter or an order issued by the department. In addition, the department may, after a hearing under Section 36, suspend or revoke a permit if the Nation has not been issued a permit under this section for each public swimming pool. The suspension or revocation order shall take effect fifteen (15) days after the date of issuance unless a hearing is requested under Section 36, subparagraph a.

36. **Appeals of actions by the Department**.

a. Procedures to request a hearing.

(1) Except as provided in Section 36, subparagraphs b. & c., a request for a hearing for denial of a permit, a voided permit, suspension, revocation, forfeiture, or an order given under Section 34, subparagraph a. (2) (d) or Section 34, subparagraph b. shall be submitted in writing to the Ho-Chunk Nation Trial Court within fifteen (15) days after receipt of the notice of the department's action.

(2) Except for as provided for in Section 36, subparagraphs b. & c., the request for hearing shall comply with all applicable rules of the *Ho-Chunk Nation Rules of Civil Procedure.*

(3) In an appeal concerning voiding a permit, the burden is on the applicant or owner to show that the entire applicable fees, late fees and processing charges have been paid.

b. A request for hearing on a temporary order given by the department under Section 34, subparagraph c. shall be made in writing to the department within fifteen (15) days of receipt of the order. The department shall hold a hearing within fifteen (15) days after the department receives the written request for hearing, unless the department and the owner agree to a later date, the immediate danger to health is removed, the order is not contested or the owner and the department mutually agree that no purpose would be served by a hearing. A final decision shall be issued, within ten (10) days following the conclusion of the hearing. The final decision shall be in writing accompanied by findings of fact and conclusions of law. The findings of fact shall consist of a concise and separate statement of the ultimate conclusions upon each material issue

of fact without recital of evidence. Every final decision shall include a list of the names and addresses of all persons who appeared before the agency in the proceeding who are considered parties. The decision may order any of the following to remove the danger to health:

(1) Changes to or replacement of equipment or construction.

(2) Changes in or cessations of any operation or method of operation of the equipment or premises.

c. If the department voids a permit under Section 32, subparagraph f., the owner shall submit, within fifteen (15) days after receipt of the notice of the department's action, documentary evidence that all applicable fees, late fees and processing charges have been paid and that there are no outstanding payments due to the department.

d. Legal Representation.

(a) In any proceedings before the Ho-Chunk Nation Trial Court or appeal of the department's actions, the department shall be represented by the Ho-Chunk Nation Department of Justice.

(b) If the Department of Business or owner appeals a decision by the department, the Department of Business or owner shall obtain outside counsel.

SUBCHAPTER II — WATER TREATMENT SYSTEMS AND WATER QUALITY

37. **Recirculation Systems**.

a. General.

(1) As required by Section 14, each pool shall have a water recirculation system with disinfection treatment and filtration equipment consisting of overflow gutters or skimmers, main drains, inlets, pumps, piping, and filters. The system shall be operated continuously except for seasonal closing or during periods of necessary maintenance.

(2) See Section 14 for design requirements for the recirculation system.

b. Skimmers and Recirculation Flow.

(1) The flow through each skimmer shall be adjusted as often as necessary to maintain a vigorous skimming action at each skimmer. The pool water level shall be maintained at an elevation so that continuous effective surface skimming is accomplished through skimmers or over the gutter lip. For gutter pools, approximately seventy-five percent (75%) of the required

recirculation flow shall be through the gutter and twenty-five percent (25%) through the main drain during normal operation. For pools with skimmers, approximately eighty percent (80%) of the recirculation flow shall be through skimmers and twenty percent (20%) through the main drain. For reverse flow pools, one-hundred percent (100%) of the required circulation shall be through the gutter or skimmer.

(2) Skimmers, skimmer weirs, and overflow gutters and drains shall be maintained so that they are clean and shall be repaired or replaced as needed. Skimmer covers shall be securely seated on deck.

(3) Inlets shall be checked and adjusted to ensure that the rate of flow through each inlet is such that a uniform distribution pattern is established. Inlets in pools with surface skimmers shall be directed as necessary to ensure that there is effective skimming in all areas.

(4) Strainer baskets or screens shall be continuously in use and maintained. Clean spare strainer baskets or screens shall be available. Strainer baskets for skimmers and pump strainers shall be cleaned at least daily.

c. Surge Tanks. Surge tanks shall be operated within designed water levels.

d. Pumps. The pump manufacturer's maintenance and operating instructions shall be followed. Recirculation pumps shall continuously achieve the designed pool water recirculation rate except during maintenance operations. The turnover time for pools shall be as follows:

(1) Swimming or combination pools. The maximum turnover time for a pool used for swimming or for a combination pool shall be six (6) hours.

(2) Water attractions. The maximum turnover times for a water attraction constructed after the effective date of this rule shall be as listed in Table 37-1.
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TABLE 37-1
MAXIMUM TURNOVER TIME BY WATER ATTRACTION TYPE [FN1]

Water Attraction Type [FN2]	Turnover Time (in hours) [FN3]
Activity	2
Interactive play attraction	0.5
Leisure river	2
Plunge	1
Runout slide	1
Vortex	1
Wave	2

FN1. Calculate an average turnover time for combination vessels.
FN2. For pool types not listed, contact the department.
FN3. Based on flow and pressure drop with a clean filter condition.

(4) Wading pools. The maximum turnover time for a wading pool shall be two (2) hours.

(5) Whirlpools. The maximum turnover time for a whirlpool shall be thirty (30) minutes.

(6) Therapy and exercise pools. The turnover times for exercise and therapy pools constructed after the effective date of this rule shall be as provided in Table 37-2.

TABLE 37-2
MAXIMUM TURNOVER TIME FOR THERAPY AND EXERCISE POOLS

Temperature in ° F. (° C.)	Load (gals/person) [FN4]	Maximum Turnover Time (hours)
72-93 (22 -33 ° C.)	>= 2,500	4
72-93 (22 -33 ° C.)	>= 450	2
72-93 (22 -33 ° C.)	< 450	1
93-104 (33 -40 ° C.)	N/A	0.5

N/A = not applicable.
FN4. The number is equal to posted patron load.

e. Flowmeters, Valves, and Gauges. Flowmeters, valves and gauges shall be maintained in operating condition.

f. Piping. Water treatment system piping shall have permanent labels, numbered tags or a color coding system that identifies valves, piping, and the direction of water flow. Labels, tags or color coding shall correspond to a conspicuously posted, easily-read chart that explains the system.

g. Filters.

(1) General. The manufacturer's data plate shall be visible on all filters. Filter shells and appurtenances shall be maintained in operating condition.

(2) Sand filters.

(a) Rapid-rate sand filters shall be backwashed when the pressure differential is greater than seven (7) pounds per square inch or as recommended by the manufacturer, whichever is less.

(b) High-rate sand filters shall be backwashed when the pressure differential is greater than eleven (11) pounds per square inch or as recommended by the manufacturer, whichever is less.

(c) Vacuum sand filters shall be backwashed when the vacuum increases eight (8) inches of mercury above the initial reading or as recommended by the manufacturer. The backwash procedure shall follow the filter manufacturer's written directions which shall be conspicuously posted in the filter area on an easily read chart.

(d) Filter media shall be inspected annually and cleaned or replaced when necessary.

(3) Diatomaceous earth filters.

(a) Pressure-type diatomaceous earth filters shall be backwashed when the pressure differential is greater than twenty-five (25) pounds per square inch or as recommended by the manufacturer, whichever is less.

(b) Vacuum-type diatomaceous earth filters shall be backwashed when the vacuum gauge reading increases to greater than eight (8) inches of mercury or as recommended by the manufacturer.

(c) Septum covers shall be removed, cleaned or replaced when they no longer provide effective filtration or create a friction loss preventing maintenance of the required recirculation rate.

(d) Diatomaceous earth wastewater separation tanks, where installed, shall be cleaned according to manufacturer instructions.

(e) Positive displacement feeder suction intake shall be suspended at least six (6) inches above any sludge layer in the solution tank. Tanks for mixing and distribution of chemicals shall be appropriately labeled. A cover with a screened vent shall be provided on all mixing and distribution tanks. The installation shall be maintained to prevent backflow of water into the tanks and to prevent the chemicals from being siphoned out of the tanks into the pool recirculation system.

(f) Diatomaceous earth slurry feeders. The lowest effective concentration of solution shall be used in a diatomaceous earth slurry feeder. The concentration of solution may not exceed five percent (5%) by weight. The diatomite slurry feeder head and lines shall be

flushed one (1) time every fifteen (15) minutes for at least one (1) minute to assure proper and continuous operation. Water from the discharge side of the recirculation pump may be used. If connection is to a potable water supply line, the supply line shall be equipped with an approved backflow or backsiphonage prevention device. Diatomite slurry tank agitators shall run continuously.

(4) Cartridge filters.

(a) Cartridge-type filters shall be removed and cleaned when the pressure differential is greater than eleven (11) pounds per square inch or as recommended by the manufacturer.

(b) Cartridges shall be replaced when plugged or damaged. A duplicate set of replacement cartridges shall be available on-site and used when removing a dirty cartridge from the filter for cleaning.

38. **Labeling, storing, mixing, and handling chemicals**.

a. Labeling. Except for erosion feeders, which require only the name of the chemical, all chemicals used in the operation and maintenance of pools, and bulk storage tanks containing the chemicals, shall be conspicuously labeled with the following information:

(1) Name of the product.

(2) The manufacturer's name and address.

(3) Active ingredients.

(4) Directions for use.

(5) Hazardous ingredient warning.

(6) The U.S. environmental protection agency registration number.

b. Storage. Chemicals shall be stored in the original or a properly-labeled container, which shall be covered and kept in a clean, dry, well ventilated and locked area away from flammables, incompatible chemicals, and heat sources. Only authorized personnel shall have access to the storage area. Chemicals may not be stored in chlorine gas storage areas. Food may not be stored in the chemical storage area. Smoking is prohibited in the chemicals storage area.

c. Mixing. A chemical solution shall be added to water, not by adding water to the chemical. Each chemical or chemical solution shall be separately added to the water.

d. Handling.

(1) Smoking. Smoking by anyone handling chemicals or by anyone within the immediate vicinity of chemicals being mixed is prohibited.

(2) Material safety data sheet. Material safety data sheets shall be readily available at the pool attraction area for every chemical used.

39. **Disinfectant feeders and filter aid equipment**.

a. General. As required in Section 15, subparagraph a. (2), all disinfectant feeders shall be approved by the department and installed according to the manufacturer's directions, used only with the disinfectant recommended by the manufacturer and meet all of the following requirements:

(1) Feeders shall be automatic, easily adjustable, capable of providing the required chemical residuals, equipped with flow control valves upstream and downstream from the feeder, easily disassembled for cleaning and maintenance, durable, and capable of accurate feeding with a rate-of-flow meter installed to accurately measure the flow through the feeder system.

(2) Feeders shall be properly vented and incorporate antisiphon safeguards to prevent disinfectant feeding in the event of the failure of recirculation equipment.

(3) Feeder pumps shall be electrically connected to the recirculation pump control circuit and have a separate disconnect switch.

b. Equipment Maintenance. All maintenance that presents a danger to the patrons, including changing the gas tanks, shall be performed when the pool is not in use or is closed to public use.

c. Repairs. Only personnel trained and licensed in handling gas chlorine by a certifying agency such as the United States Federal occupational health and safety administration may repair gas chlorinators.

40. **Disinfectant feeding and residuals**.

a. General. Each pool in use shall be automatically and continuously disinfected by means of disinfectant and feeding equipment that is in compliance with this section and Section 39.

b. Chemical Use Requirements.

(1) Disinfectant-producing chlorine and bromine and other chemicals. Disinfectant-producing chlorine or bromine and any supplemental chemical used shall meet all of the following requirements:

(a) The disinfectant or supplemental chemical is registered with the U.S. environmental protection agency as a disinfectant.

1. For pools physically located in Wisconsin, the product label is registered with the Wisconsin department of agriculture, trade and consumer protection.

2. For pools physically located outside of Wisconsin, the product label is registered to the equivalent agency to the Wisconsin department of agriculture, trade, and consumer protection. If there is no similar equivalent agency or that agency does not register product labels, then the product label shall be registered with the Wisconsin department of agriculture, trade and consumer protection.

(b) The disinfectant has an effective residual that can be measured easily and accurately by an approved field test procedure.

(c) The disinfectant is compatible for use with other chemicals normally used in the water treatment or is clearly identified as having a use limitation.

(d) The disinfectant does not impart toxic properties to the water when used according to the manufacturer's directions.

(e) The disinfectant does not create an undue safety hazard when handled, stored or used according to the manufacturer's directions.

(2) Bromine. Bromine may not be used in a waterslide, pool slide, plunge pool or wave pool without the department's approval.

(3) Gas chlorination.

(a) Where chlorine gas is used, all staff who operate equipment shall be trained in the handling and use of chlorine gas, including the use of the self-contained breathing apparatus.

(b) A plastic bottle of ammonium hydroxide or another leak detection method approved by the department shall be available at the chlorine gas storage area. If an electronic leak detection system is installed, it shall be located in gas storage rooms and shall be maintained and tested annually. The results of the testing shall be maintained on the site.

(c) A list of telephone numbers to contact appropriate emergency personnel in the event of an emergency related to chlorine use shall be conspicuously posted at a continuously

accessible telephone located reasonably close to the chlorine gas storage room. A durable placard clearly stating the location of the nearest accessible phone shall be posted on the outside of the chlorine gas storage room door.

(d) A Respiratory Protector designed for use in a chlorine gas atmosphere shall be stored where it is immediately accessible to personnel who enter the chlorine gas storage room. The Respiratory Protector shall be continuously usable and readily accessible, and replacement parts and cartridges shall be readily accessible. The pool shall implement a written respiratory protection plan in compliance with 29 CFR 1910.134, which includes procedures for the selection and use of respirators and training users.

(e) A written plan of action for responding to a chlorine gas emergency shall be posted and practiced by maintenance staff.

(f) The doors to all rooms in which a chlorine gas feeder is located or a cylinder of compressed chlorine gas is located or stored shall be labeled "DANGER-CHLORINE GAS" in clearly readable letters.

(g) Light switches and exhaust switches shall be located outside of the chlorine gas storage room.

(h) Chlorine cylinders shall be stored indoors in an area having approximately the same air temperature as the room housing the chlorinator and shall be sheltered from a direct source of heat or sunlight. Cylinders shall be in an upright position and shall be chained or strapped to a rigid support. Cylinders may not be moved unless the protection cap is secured over the valve. Empty cylinders shall be tagged to indicate they are empty. Cylinder valves shall be closed.

(i) See Section 15, a. for design requirements for gas chlorination equipment.

c. Feeding. Disinfectant and filter aid feeding shall be conducted as follows, as applicable respectively:

(1) Positive displacement disinfectant feeding. Liquid chemicals shall be fed into water circulation piping or a surge tank or vacuum filter by means of a positive displacement feeder either at full strength or diluted. If calcium hypochlorite or another chemical that forms a residue is used, a two (2) tank system shall be used. One (1) tank shall be used for mixing the

solution and settling the precipitate. The clear liquid shall be decanted or siphoned into the second (2nd) tank for distribution.

(2) Flow-through feeders. The chemical used, the manner of usage, and the quantity used in a flow-through feeder shall be as recommended by the feeder manufacturer.

(3) Dry feeders. Feeders used for feeding dry chemicals into water circulation piping, a surge tank, or vacuum filter shall be maintained for proper operation.

d. Chemical Concentrations and Residuals.

(1) Minimum disinfectant residuals. Except as provided in Section 40, subparagraph d. (2), feeding shall result in the minimum disinfectant residuals in Table 40-1.

TABLE 40-1
MINIMUM DISINFECTANT RESIDUALS

Swimming and Activity Pool	Minimum Free Chlorine Residual	Total Bromine
Swimming and Activity Pool	1.0 ppm	3.0 ppm
Swimming and Activity Pool With Stabilizer	1.5 ppm	N/A
Wading Pools		
Wading Pool	2.0 ppm	4.0 ppm
Wading Pool with Stabilizer	3.0 ppm	N/A
Whirlpool, Exercise, Therapy Pools		
Whirlpool	3.0 ppm	7.0 ppm
Whirlpool with Stabilizer	4.0 ppm	N/A
Water Attractions Other Than Those Specified		
Water Attractions Other Than Those Specified	1.0 ppm	3.0 ppm
Water Attractions Other Than Those Specified with Stabilizer	1.5 ppm	N/A
Plunge Pools and Wave Pools		
Plunge and Wave Pool	2.0 ppm	5.0 ppm
Plunge/Wave Pool with Stabilizer	3.0 ppm	N/A
Interactive Play Attractions		

Interactive Play Attractions	2.0 ppm	5.0 ppm
Interactive Play Attractions with Stabilizer	3.0 ppm	7.0 ppm
Waterslides and Pool Slides		
Waterslides and Pool Slides	2.0 ppm	5.0 ppm
Waterslides with Stabilizer	3.0 ppm	N/A

41. **Alternative Disinfection System**. Any one of the following supplemental systems may be added to a pool if an automated disinfection system is in place and on line to maintain the disinfectant residuals under Table 40-1:

a. Chlorine Generators. Chlorine generators shall be NSF approved and installed according to NSF and manufacturer instructions. An additional disinfection system shall remain on line to provide the capacity to superchlorinate the water as specified in Section 15, subparagraph a. (3). s. Comm 90.12 (1) (c).

b. Ozone Generators.

(1) Ozone generators shall provide a concentration of ozone in the return line to the pool not to exceed 0.1 mg/L.

(2) The generator shall be electrically interlocked with the recirculation pump to prevent the feeding of ozone when the recirculation pump is not operating. A flow sensor controller may also be used to turn off the feeder when flow is interrupted.

(3) Off-gassing of ozone shall not result in ozone levels in the equipment room or pool area exceeding 0.1 ppm.

c. Ultra Violet Light. Ultraviolet light units shall be NSF tested and approved for use in water disinfection systems and installed pursuant to NSF requirements.

42. **Water Quality**.

a. General Requirement. Pool water shall be free of chemical, physical and microbial substances known to be, or suspected of being, capable of creating toxic reactions or skin or membrane irritations.

b. Water Clarity. Water containing 0.5 or less Nephelometric Turbidity Units is considered clear. The main drain shall be readily visible from the pool deck.

c. Water Sampling.

(1) Sample collection and analysis.

(a) The department or its agent may collect samples of pool water for microbiological analysis in evaluating water quality. For pools located within Wisconsin, the analysis of water samples shall be performed by a laboratory accredited by the Wisconsin department of agriculture, trade, and consumer protection. For pools located outside of Wisconsin, the analysis of water samples shall be performed by a laboratory accredited by that State's equivalent agency to the Wisconsin department of agriculture, trade, and consumer protection. In either case the analysis of water samples shall comply with the procedures established in the 21st edition of Standard Methods for the Examination of Water and Wastewater, published jointly by the American Public Health Association, the American Water Works Association and the Water Environment Federation. These monitoring activities may be supplemented with additional microbiological analysis, which shall be performed by an accredited laboratory certified in those methods.

(b) Primary protection from the risk of microbiological disease acquired from pools is achieved through monitoring and maintaining pH levels and disinfection residuals in the recommended ranges. The 21st edition of *Standard Methods for the Examination of Water and Wastewater* may be purchased from the American Public Health Association, 800 I Street, N.W., Washington, D.C. 20001-3710.

(2) Bacteriological standards. Water quality should be maintained to meet the following standards:

(a) When bacteriological analysis of total coliforms is performed, no coliforms are present in a one-hundred (100) mL sample.

(b) When bacteriological analysis is performed for the heterotrophic plate count, the total count may not exceed two-hundred (200) colonies in a one (1) mL sample.

(c) When bacteriological analysis is performed for staphylococci, the count may not exceed fifty (50) organisms in a one-hundred (100) mL sample.

d. Algae Control. An algaecide may be used in a pool if the algaecide complies with Section 40, subparagraph b. and is used according to the manufacturer's directions for potable water.

43. **Water Tests Kits and Water Testing Frequency**.

a. A test kit of a type approved by the department shall be maintained for testing the pool water pH; the disinfectant residual; the combined chlorine level, when chlorine is used; the total alkalinity; and the cyanuric acid concentration, when used.

b. Test kit reagents shall be stored in the original labeled container and shall be replaced as recommended by the manufacturer.

c. The disinfectant testing reagent shall be diethyl-p-phenylene diamine (DPD) in powder or liquid form. A test kit using the titrimetric method (FAS-DPD) for chlorine and bromine testing and colorimetric comparators used for additional water testing shall be approved by the department and shall provide for accurate comparison in the required range for each test as stated in Section 40, subparagraph d. The test equipment shall provide for direct measurement of free and combined chlorine from zero (0) to ten (10) ppm in increments of 0.2 ppm. If bromine is used, the testing equipment shall provide for direct measurement of total bromine from zero (0) to twenty (20) ppm in increments of 0.2 ppm.

d. Except as provided under Section 44, subparagraphs a. or b., water shall be tested for pH and disinfectant residual daily before the pool is open to the public or before the pool is in use, and at least one (1) other time during the day's peak patron load. When chlorine is used, the water shall also be tested at least two (2) times a week for the combined chlorine level. Water shall also be tested at least one (1) time a week for total alkalinity. When cyanuric acid is used in the water basin, the cyanuric acid concentration in the water shall be tested at least one (1) time a week.

e. Except as specified under Section 44, subparagraph c. water in a whirlpool, therapy pool, or exercise pool shall be tested for pH and disinfectant residual before the pool is open to the public or before the pool is in use and at least four (4) times daily. For at least two (2) of these times, the testing shall be done when the pool is in use. Water shall be tested at least one (1) time daily for combined chlorine, when chlorine is used, and at least weekly for total alkalinity.

f. Water in a pool that has a properly functioning electronic monitoring device installed to control pH and disinfectant residual shall be manually tested at least one (1) time a day for pH and disinfectant residual with an approved test kit as specified in Section 43. The operator shall continually monitor the device to determine if it meets operating criteria specified in Section 40, subparagraph e.

44. **Water Supply and Temperature**.

a. Water Supply Protection. A minimum air-gap of two (2) pipe diameters or six (6) inches, whichever is less, shall exist between the potable water supply inlet and the overflow point of any pool, makeup tank, surge tank, solution tank, or slurry tank unless another department-approved backflow and backsiphonage prevention device is provided.

b. Water Source. The water supplied to a pool shall be from a source approved by the Ho-Chunk Nation department of natural resources under applicable Ho-Chunk Nation Law or policies.

c. Water Level. Proper water level shall be maintained at all times when the pool is open. Water levels in pools with skimmers shall be maintained at a level such that the weir is half submerged. Pools designed with gutters shall have a continuous water supply over the gutter to provide effective skimming.

d. Water Temperature.

(1) An accurate thermometer shall be located in the pool water return line and shall be accessible for observation by the operator.

(2) Except in Section 44, subparagraph d. (4), the water temperature of an indoor pool shall be between seventy-two degrees (72°) F. or twenty-five degrees (25°) C. and ninety-five degrees (95°) F. and thirty-five degrees (35°) C. The minimum water temperature for an outdoor pool shall be sixty-five degrees (65°) F. or eighteen degrees (18°) C.

(3) The water temperature in whirlpools may not exceed one-hundred and four degrees F. and forty degrees (40°) C.

(4) Cold soak pools may be operated at a lower temperature than specified under Section 44, subparagraph d. (2). The pool shall post the water temperature on signage as required under Section 54.

SUBCHAPTER III — STAFFING POOLS

45. **Operator**.

a. Pools.

(1) General requirement. Each pool shall be under the supervision of at least one (1) operator, except that contiguous multiple pools operated under the same owner may be supervised by one (1) operator.

(2) Operator responsibilities. Each operator shall be responsible for pool operation and maintenance including equipment shutdown, backwashing, daily maintenance and vacuuming, and maintenance of water quality pursuant to Section 37.

b. Special Requirements for Water Attractions.

(1) Certified water attraction operator required.

(a) Each water attraction and water attraction complex shall be staffed by at least one certified water attraction operator by January 1, 2009. An owner of a water attraction or water attraction complex that first applies for a permit under Section 32 after January 1, 2009 shall be staffed by a certified water attraction operator within ninety (90) days after receiving a permit to operate the water attraction or water attraction complex.

(b) The owner of a water attraction or water attraction complex shall replace a certified water attraction operator within 90 days after a certified operator's departure.

(2) Documentation of certification. Current certifications of certified water attraction operator staff shall be maintained at the water attraction and water attraction complex.

46. **Responsible Supervisor**.

a. Each pool shall be under the supervision of at least one (1) responsible supervisor at all times when the pool is in use or is open to the public. The responsible supervisor shall be on the premises or available via a phone number posted by the emergency phone to respond to an unsafe or unsanitary condition at any time the pool is open for use. The responsible supervisor shall maintain order, ensure that safety equipment is in place, and enforce pool use regulations governing safety, sanitation and water testing.

b. The responsible supervisor shall have the authority to close the pool as necessary under Section 55.

47. **Lifeguards and Attendants**.

a. Lifeguard and Attendant Staffing Plans.

(1) The owner or operator of a pool, including a whirlpool over 4 feet deep and a pool with a visual obstruction, and the owner or operator of a water attraction or water attraction complex shall submit a written, proposed lifeguard and attendant staffing plan to the department or the department's agent for approval. The owner or operator shall keep a copy of the plan at the pool. The plan shall include all of the following:

(a) The square footage of the pool, water attraction, and water attraction complex as applicable.

(b) The maximum and average patron load.

(c) The hours of operation.

(d) The location of each lifeguard station and each first aid station.

(e) The number of lifeguards or attendants on duty pursuant to Section 48.

(f) A diagram of the facility that indicates the placement of attendants, lifeguards, chairs and stations for both average and maximum patron capacity. The diagram shall include each obstruction.

(g) A method of communication when two (2) or more attendants or lifeguards are required for a water attraction.

(2) A pool that is not required under Section 48 to have a lifeguard shall post a sign that states, in letters that are a minimum of four (4) inches high, "No Lifeguard on Duty".

(3) A plan required under par. (a) for a whirlpool that is located in a water attraction complex shall specify that at least one (1) attendant shall provide periodic supervision. If a whirlpool is not supervised by an attendant at all times, a sign shall be posted that states in letters at least four (4) inches high: "Non-guarded area."

b. Qualifications.

(1) A copy of each lifeguarding certification, first aid certification, and CPR certification held by lifeguard staff shall be maintained at the pool and shall be made available for inspection by the department.

(2) At least one (1) of the lifeguards required under Section 48, subparagraph a. to supervise a water attraction that has a surface area of two-thousand (2,000) square feet or more and a water depth greater than four (4) feet shall have one (1) or more of the following additional certifications:

(a) American Red Cross Water Park Lifeguard certificate.

(b) National Aquatic Safety Company Lifeguard Training certificate.

(c) National Pool and Water park Lifeguard Training certificate.

(d) Other water park certification approved by the department.

(3) Attendants may staff water attractions, waterslides, or pool slides to assist patrons. Attendants may not be used in place of lifeguards.

c. Lifeguard Identification and Assignment.

(1) At all times when on duty a lifeguard shall wear clothing that is conspicuously marked "Lifeguard" or "Guard", a rescue tube with a harness as instructed in national certification courses, and a whistle.

(2) A lifeguard who is assigned to supervise a pool or water attraction may not be assigned duties that may distract the lifeguard's attention from observing a patron in the pool or water attraction area or that may hinder the lifeguard's ability to provide immediate assistance to a patron.

48. **Lifeguard and Attendant Placement and Staffing Requirements**.

a. General.

(1) Lifeguard Staffing Requirements.

(a) Each pool having a surface area of two-thousand (2,000) square feet or more shall be staffed pursuant to Table 48-1 and Table 48-2 when the pool is in use or is open to the public. If the requirements in 48-1 and Table 48-2 conflict, the pool shall comply with the strictest requirements of 48-1 or Table 48-2.

(b) An operator may close a portion of a pool to patrons in order to meet the square footage limits in Table 48-1 for lifeguard staffing, except that lifeguard staffing requirements for a pool of two-thousand to four-thousand and nine-hundred and ninety-nine (2,000 to 4,999) square feet shall be maintained.

(c) When the patron load of a pool exceeds three-hundred and thirty-six (336) patrons, one (1) lifeguard shall be provided for each additional one-hundred (100) patrons or fraction thereof.

(2) Except for the Ho-Chunk Hotel Pool as provided for in Section 48, subparagraph c., a pool type that is not addressed in Table 48-1 or Table 48-2 shall request evaluation by the department and follow the requirements specified by the department following the evaluation.

(3) An additional lifeguard shall be provided for every two (2) slide flumes installed at a pool other than a separate waterslide plunge pool.

(4) An attendant responsible for enforcing waterslide usage rules shall be stationed at the entrance to the waterslide flume. There shall be one (1) attendant for every four (4) entrances to the waterslide flume.

b. Each pool that is not required to have a lifeguard shall post a sign with letters at least four (4) inches high stating: "WARNING: NO LIFEGUARD ON DUTY."

TABLE 48-1
REQUIRED NUMBER OF LIFEGUARDS BASED ON SQUARE FOOTAGE

Actual Patron Load*	Lifeguards for a Pool or Water Attraction with a Surface Area of 2,000 to 4,999 Sq. Ft.	Lifeguards for a Pool or Water Attraction with a Surface Area of 5,000 to 9,999 Sq. Ft.	Lifeguards for a Pool or Water Attraction with a Surface Area of 10,000 or More Sq. Ft.
1-60	1	2	3
61-136	2	3	4

137-236	3	4	5
237-336	4	5	6

* When the patron load exceeds three-hundred and thirty-six (336) patrons, one (1) lifeguard shall be provided for each additional one-hundred (100) patrons or fraction thereof.

TABLE 48-2
REQUIRED NUMBER OF LIFEGUARDS AND ATTENDANTS BASED ON POOL TYPE

Pool Type	**Lifeguard and Attendant Staffing Requirements**
Activity Pools	At least one lifeguard is required if the pool contains one of the following: 1. A pad walk. 2. A tethered floatable more than 18 inches long in 2 directions. Appendages such as alligator feet should not be included in determining the length. 3. A non−tethered floatable. Non−tethered floatables do not include tire inner tubes used in leisure rivers or waterslides.
Leisure Rivers	At least one attendant is required at the entrance of the leisure river. The attendant shall have a clear line of sight for all areas of the river, or additional attendants are required so that all areas of the river are in view of at least one attendant.
Vanishing Edge Pools	At least one lifeguard regardless of the square footage, unless the water attraction is limited to adult use only.
Vortex Pools and Current Pools	At least one lifeguard is required whenever the pool is occupied by a

	patron.
Wave Pool	At least one lifeguard is required regardless of the square footage of the pool. Additional lifeguard staffing shall be based on the patron load requirements in Table SHOWING LIFEGUARD REQUIREMENTS PER SQUARE FOOT Table 48-1
Pools with a Visual Obstruction	At least one attendant is required if the pool has a visual obstruction larger than 10 feet in length by 6 feet in height by 5 feet in width or if the visual obstruction covers more than 20 percent of the pool's basin.
Pools with Diving Boards or Platforms	At least one lifeguard for every 2 diving boards or platforms in the same pool.
Amenity Pool	Amenity pools do not require a lifeguard or attendant.
Pools with slides	1. Children's Slide: No attendant is required. 2. Poolslide: Greater than 4 feet but less than 6 feet in height, which drops into water greater than 4 feet deep: At least one lifeguard. 3. Poolslide: Less than 6 feet in height, with an obstructed view of slide terminus at 43 inches at entry point: At least one lifeguard. 4. Drop slide: Less than 6 feet in height: At least one lifeguard 5. Run−out slide: Greater than 6 feet in height clear view of the terminus end: At least one attendant

	on top platform. Greater than 6 feet obstructed view of the terminus end: At least one attendant on top and bottom of run−out. Less than 6 feet clear view of terminus end: No attendant or lifeguard required 6. Waterslide: Greater than 6 feet: Attendant on top of the slide, lifeguard on bottom and means of 2−way communication between attendants and lifeguards. Less than 6 feet with a clear view of terminus end and no obstructions around slide: At least one lifeguard.
Wading Pools	Wading pools do not require a lifeguard or attendant unless there is a large obstruction per Section 21, subparagraph c. and Section 26, subparagraph c.
Exercise Pools	Exercise pools do not require a lifeguard or attendant.
Whirlpools	If a whirlpool is located within a water attraction complex, at least one attendant shall provide periodic supervision of the whirlpool. If a whirlpool is not guarded or attended with an attendant assigned at all times, a sign shall be posted that states in letters that are at least 4 inches high: Non−guarded area.
Therapy Pools	At least one attendant who has current CPR certification is required for a therapy.
Interactive Play Attraction (Splash Pads)	An interactive play attraction not restricted by an enclosure shall have at least one attendant on the premises. The

	attendant shall provide periodic supervision of the water attraction as specified in the staffing plan.

c. Ho-Chunk Hotel Pool.

(1) If the Ho-Chunk Hotel Pool satisfies the requirements of section 48, subparagraph c. (2), the Ho-Chunk Hotel Pool will not require a lifeguard or attendant.

(2) The following requirements shall be satisfied prior to the Ho-Chunk Hotel Pool operating without a lifeguard or attendant:

(a) The Ho-Chunk Hotel Pool shall have posted four (4) signs with letters at least four (4) inches high stating: "WARNING: NO LIFEGUARD ON DUTY." One (1) of the four (4) signs shall be prominently located at the patron entrance to the pool.

(b) The Ho-Chunk Hotel Pool shall have posted four (4) signs with letters at least four (4) inches high stating: “WARNING: NO DIVING INTO THE SWIMMING POOL.” At least one (1) of the four (4) signs shall be hung on the wall immediately adjacent to the swimming pool.

(3) No additional substantial construction or substantial redesign of the swimming pool or two (2) whirlpools may occur after the initial passage of the *Pool Ordinance* (3 HCC § 8). The date of initial passage of the *Pool Ordinance* (3 HCC § 8) shall be listed in the Legislative History section of the *Pool Ordinance* (3 HCC § 8). If after passage of the *Pool Ordinance* (3 HCC § 8) the Nation proceeds with additional substantial construction or substantial redesign of the swimming pool or two (2) whirlpools, the Ho-Chunk Hotel pool shall be staffed pursuant to Table 48-1 and Table 48-2 when the pool is in use or is open to the public.

49. **Instructional Programs**. A pool that is used for instructional purposes shall be staffed by a lifeguard when the instructional program is in session. If the coach or instructor that provides instruction during the program is a lifeguard, the requirement of this subsection is met provided the coach or instructor can supervise the entire group. A pool that normally requires a lifeguard and that is open to the public during an instructional program session shall be supervised by an additional lifeguard or attendant pursuant to Section 48.

SUBCHAPTER IV — OPERATION AND MANAGEMENT

50. **Permissable Patron Load**.

a. Water Attractions. The maximum number of patrons permitted to be in an individual

water attraction at any one (1) time shall be calculated on the basis of allowing one (1) patron for every fifteen (15) square feet of water surface area. The splash zone of any water attraction shall be included in the calculation of the water surface.

b. Pools.

(1) Pools used for swimming and combination pools. The maximum number of patrons permitted to be in the water of a pool used for swimming or a combination pool at any one (1) time shall be computed on the basis of allowing one (1) patron for every fifteen (15) square feet of the shallow portion of the pool and one (1) patron for every twenty-five (25) square feet of the deep portion of the pool. Three hundred (300) square feet of pool water surface around each diving board and platform may be excluded in computing the permissible patron load. An additional ten (10) patrons for each diving board shall be included in the computation.

(2) Whirlpools. The maximum number of patrons permitted to be in the water of a whirlpool at any one (1) time shall be computed on the basis of allowing one (1) patron for every ten (10) square feet of whirlpool surface area.

(3) Wading pools. The maximum number of patrons permitted to be in the water of a wading pool at any one (1) time shall be computed on the basis of allowing one (1) patron for every fifteen (15) square feet of wading pool surface area.

(4) Therapy and exercise pools. The maximum number of patrons permitted to be in the water of a therapy or exercise pool at any one (1) time shall be computed on the basis of allowing one (1) patron every fifteen (15) square feet of the shallow portion of the pool and one (1) patron for every twenty-five (25) square feet of the deep portion of the pool.

51. **Rescue Equipment**.

a. Required Equipment.

(1) All rescue equipment shall be maintained in good repair. Rescue equipment shall be mounted in a conspicuous place and shall be readily accessible.

(2) For each basin of water over four (4) feet in length and over two (2) feet deep, a shepard's crook-type pole shall be provided. In addition, for each lifeguard chair, or for a pool thirty (30) feet or more in width that does not have lifeguard chairs, at least one (1) of the following shall be provided:

(a) A ring buoy having a minimum outside diameter of twenty (20) inches. Each ring buoy shall be attached to a 1/4 inch rope having a length not less than 11/2 times the maximum width of the pool or fifty (50) feet, whichever is less.

(b) A rescue tube.

(3) The safety rope required in Section 11, subparagraph d. shall remain in place except during a lifeguarded activity or adult only lap swim. The responsible supervisor shall ensure the rope is in place during required times.

(4) A spine board with straps and head immobilizer in good condition shall be available at a pool where a lifeguard is required.

b. Telephone. For outdoor pools, a working telephone shall be available in the pool area. For indoor pools, a working telephone shall be available within the enclosed area around a pool. A current list of emergency numbers and the facility's location shall be attached to or posted near the telephone. Cellular or cordless phones may not be used to comply with this subsection. Except for cellular or cordless phones, a request for an alternative location for a telephone or another system of communication that provides access to emergency service during hours of pool operation may be made to the department. Upon granting or denying an alternative location for a telephone the Department shall maintain a record of the reasons for its granting or denying the request.

52. **First Aid Supplies**.

a. A first aid kit of a sort approved by the department and two (2) durable blankets in good condition shall be available at each pool area. The first aid kit shall contain all of the following items:

(1) Gauze pads - 4" x 4".

(2) Gauze pads - 8" x 10".

(3) Adhesive bandages.

(4) Triangular bandages.

(5) Scissors.

(6) Gauze roller bandage.

(7) Tweezers.

(8) Adhesive tape.

(9) Eye wash.

(10) Elastic bandage.

(11) Disposable surgical gloves.

(12) Resuscitation pocket face mask.

(13) Instant cold packs.

b. Biohazard safety equipment, including a blood and biohazard disposal kit shall be located at the first aid station or another location on the premises approved by the department.

53. **Location of Food or Drink Service Facilities**. Food or drink service facilities may not be located within twelve (12) feet of the water's edge of a pool.

54. **Posting pool and water attraction rules**.

a. General.

(1) The operator shall post pool use rules governing safety and sanitation and shall enforce those rules.

(2) A legible sign showing pool use rules shall be posted in a conspicuous place or places in the pool area. The sign shall include at least all of the rules in this paragraph in letters at least one (1) inch high. Pool rules in connection with water attractions, therapy pools or other specialized pools defined in Chapter II or this chapter may not be eliminated or modified without approval by the department and Legislature. The Legislature may grant its approval by passing a Resolution.

(a) Do not enter the pool if you have a communicable disease or an open cut.

(b) Do not bring food, drink, gum or tobacco into the pool.

(c) Shower before entering the pool and after use of toilet facilities.

(d) Do not run or engage in rough play in the pool area.

(e) Do not bring animals into the pool area.

(f) Diaper changing on the pool deck is prohibited.

(g) Glass and shatterable items are prohibited in the pool area.

(3) A pool that is two-hundred (200) square feet in area or greater that does not have an approved diving well configuration shall have "NO DIVING" signs in at least four (4) inch high letters included with the rules listed under Section 54, subparagraphs a.(2).

(4) A sign showing the maximum patron load shall be conspicuously displayed in each pool area. The maximum patron load as stated in Section 50 may not be exceeded.

(5) If non-toilet-trained children are permitted in the pool, the children shall be required to wear swim diapers.

b. Pool Slides and Waterslides. For the plunge section of a pool, the pool use rules signage required under Section 54, subparagraphs a. shall also be conspicuously posted at the entrance to the slide tower and include all of the following rules:

(1) Do not use the slide while under the influence of alcohol or drugs.

(2) Follow the instructions of the attendant.

(3) No standing, kneeling, rotating or stopping in the flume.

(4) Keep your hands inside the flume.

(5) Leave the plunge area immediately.

(6) WARNING: Water depth is _____ feet.

c. Whirlpools. For whirlpools, the signage required under Section 54, subparagraph a. shall also be conspicuously posted in the whirlpool area and include all of the following rules preceded by the word WARNING conspicuously printed in at least one (1) inch letters:

(1) Elderly persons and persons suffering from heart disease, diabetes, or high or low blood pressure should not enter the whirlpool.

(2) Minors under the age of twelve (12) who are unsupervised may not use the whirlpool.

(3) Persons under the influence of alcohol or drugs may not use the whirlpool.

(4) Pregnant women should consult their physician regarding whirlpool usage.

(5) Lengthy exposure may be hazardous to your health and may result in nausea, dizziness or fainting.

(6) Minors under the age of six (6) and under are not permitted in the whirlpool.

d. Vortex Pool and Current Pools. For vortex pool and current pools, the signage required in Section 54, subparagraph a. shall also be conspicuously posted in the vortex pool and current pool area and include "Artificial Current; Strong Swimmers Only." in four (4) inch or larger letters.

e. Cold Soak Pools. For cold soak pools, the signage required under Section 54,

subparagraph a. shall also be conspicuously posted in the cold soak area and include a sign that states the water temperature in Fahrenheit in at least four (4) inch high letters.

f. Interactive Play Attractions. Signage shall be conspicuously posted on the periphery of the interactive play water attraction and shall clearly state all of the following in at least one (1) inch letters:

(1) Do not enter the interactive play attraction if you have a communicable disease or an open cut.

(2) Do not bring food, drink, gum, tobacco, glass, or street shoes into the interactive play attraction.

(3) Do not bring animals into the interactive play attraction area.

(4) Recreational wheel-based methods of transportation are prohibited.

(5) Diaper changing is permitted in designated areas only, and not allowed on splash area.

55. **Pool Closing Criteria**. Any of the following conditions or situations shall constitute sufficient reason for the operator or responsible supervisor to close a pool or for the department or its agent under Section 34, subparagraph c. to order that the pool be closed:

a. The presence of a hazardous substance or object in the pool or the existence of any condition creating an immediate danger to health or safety, including fecal accident events.

b. Failure to comply with the water quality requirements in Section 42.

c. Failure to comply with the disinfectant residual levels established in Section 40 or pH values that are less than 6.8 or equal to or greater than eight (8.0).

d. A non-operational circulation pump, filter, or disinfectant feeder.

e. Failure to comply with the number of lifeguards or attendants required in Section 48.

f. Absence or non-availability of a responsible supervisor.

56. **Fecal Accident Response**.

a. In responding to a fecal accident, the operator shall consider guidelines for fecal accidents in pools used for swimming published by the federal centers for disease control and prevention. Centers for Disease Control guidelines for responding to fecal accidents and blood and vomit spills may be viewed at: http://www.cdc.gov/healthyswimming/fecalacc.htm.

b. The operator shall document each fecal contamination as follows:

(1) The date and time of the event and the free available chlorine and pH level at the time of the event and after the event, before re-opening the pool to the public.

(2) Whether the stool is formed or loose.

(3) The procedures followed in responding to the fecal contamination.

(4) The number of patrons in the pool and the length of time between the occurrence, detection, and resolution of the incident.

57. **Monthly Reports and Records**.

a. Operating Reports. The pool operator or responsible supervisor shall complete monthly reports of daily pool operation on forms provided by the department or agent. The monthly reports shall be submitted, as requested, to the department or to the agent as appropriate no later than the tenth (10^{th}) day of the following month.

b. Death, Injury, or Illinois Reports.

(1) The operator shall report incidents resulting in death, or serious injury or illness that requires assistance from emergency medical personnel, by the end of the next working day following the incident by phone or fax to the department or agent.

(2) Report deaths, injuries or illnesses to the department**.**

c. Files.

(1) The operator shall maintain on the premises a file containing a copy of each of the following:

(a) The monthly operating reports required under Section 57, subparagraph a.

(b) Each laboratory bacteriological report.

(c) Each fecal accident report made under Section 56.

(d) In addition to the reports listed under Section 57, subparagraph c. (1) (a), (b), and (c) any other report submitted to the department or agent for the preceding two (2) year period.

(e) A copy of the most current version of this *Pool Ordinance* (3 HCC § 8).

(f) Pool construction plans.

(g) The manufacturer's pump performance curve, manual of instruction on filter operation, recommendations for operation and maintenance of all equipment, and instructions and other pertinent information on pool operation and maintenance.

(h) The most recent Federal centers for disease control recommendations for fecal accidents or other plan in response to fecal accidents.

(i) Daily inspections and operational tests as specified in Section 62.

(2) All records shall be kept at least seven (7) years, except that monthly reports, fecal accident reports, daily inspection results, and operational tests shall be kept for at least two (2) years.

(3) All of the documents under Section 57, subparagraph c. (1) shall be accessible to the operator and the department or agent.

58. **Facility Maintenance, Repair, and Sanitation**.

a. Pool Area.

(1) General. Each pool shall be routinely brushed or vacuumed to keep the basin and surrounding appurtenances free of sediment, lint, hair, debris, algae and slime growth and discoloration. Cracks or other defects shall be repaired and the pool interior shall be refinished as necessary to maintain it in a cleanable condition. The pool and water area shall be maintained in a clean and sanitary condition. Glass and shatterable plastic items shall be prohibited in the pool area.

(2) Deck maintenance and cleaning. Pool areas and appurtenances, including safety pads, shall be maintained in good repair and shall be rinsed daily to prevent microbial growth. Indoor pool decks shall be disinfected at least weekly. Depth markings along the edge of the pool shall be maintained to be clearly visible and readable. The deck shall be kept unobstructed except for easily portable furniture and equipment.

(3) Walls, ceilings and floors. The walls, ceilings and floors in the pool area shall be maintained in a clean and sanitary condition.

(4) Hosing. Hosing shall be provided in adequate lengths to flush the entire pool deck. All hose bibbs shall be protected against backsiphonage by the proper installation of an approved backflow prevention device as required under Section 16, subparagraph f.

(5) Equipment. Pool equipment, including equipment on the deck, shall be properly located and installed and maintained and repaired as necessary.

(6) Spectator areas. The spectator area shall be maintained in a clean condition. Spectator areas with tables, chairs and other obstructions may not block the deck.

(7) Drinking fountain. Each drinking fountain required under Section 12, subparagraph d. and Section 19 shall be maintained in clean and sanitary condition.

b. Shower, Toilet, and Dressing Facilities.

(1) The walls, partitions and floors of showers, toilet rooms and dressing areas shall be maintained in good repair and shall be cleaned and disinfected daily and more often if necessary to provide clean and sanitary conditions. See Section 19 for additional information.

(2) Showers shall be maintained in an operable condition and each shower shall provide three to five (3 to 5) gallons of water per minute.

(3) Toilet room fixtures and diaper changing stations shall be kept clean and maintained in good repair.

(4) Lockers and furniture shall be cleaned as needed and maintained in good repair.

(5) Soap shall be continually provided at each hand washing sink and shower in permanently installed dispensing devices. The dispensers shall be maintained in operating condition.

(6) Individual towels in dispensers or hot air dryers shall be provided at hand washing sinks.

(7) A continuous supply of toilet tissue shall be provided in permanently installed dispensing devices.

(8) If bathing suits or towels or caps are furnished to patrons, they shall be thoroughly laundered with detergent and machine dried after each use. Clean suits, towels and caps shall be stored separately from unlaundered articles.

(9) Hose bibbs shall be conveniently located to adequately rinse and sanitize floors in shower, dressing, and toilet facilities.

c. Garbage and Refuse. All garbage and refuse shall be stored in metal or rigid plastic containers having tight-fitting lids. A sufficient number of containers shall be provided for all garbage and refuse generated. Filled containers of garbage or refuse shall be covered and stored in a manner to prevent harborage for rodents, insect attraction and breeding areas, odors, environmental pollution and accidents. The contents of the containers shall be disposed of as needed and in a sanitary manner. All containers shall be kept clean and maintained in good repair.

d. Water Heaters, Ventilation, Electrical.

(1) Water heaters and heat exchangers shall be maintained in operating condition.

(2) Heating, ventilation, and exhaust equipment shall be maintained and operated to provide proper air movement and to prevent any excessive condensation and air quality problems in indoor enclosures. The maintenance and operation of the heating, ventilation, and exhaust equipment shall be maintained in order to protect the health, safety and welfare of the public and employees.

(3) Electrical equipment and lighting shall be maintained in good repair and in operating condition.

(4) Refer to Sections 17 and 20 for department installation requirements.

SUBCHAPTER V — POOL, SLIDE, AND WATER ATTRACTION CONSTRUCTION AND DESIGN

59. **Pool Design**.

a. Any object or material not specifically approved under this chapter or the previous chapter that may cause hazardous conditions or interfere with efficient operation of a pool, pool slide, waterslide or water attraction and deck may not be permitted in the pool area.

b. All gates and doors into the pool area shall be maintained and checked for proper operation. Gates and doors shall be locked when the pool is not open to the public or is not in use.

c. All outdoor pool enclosures shall be at least five (5) feet high.

d. All pool areas shall be enclosed and have self-closing and latching gates or doors that are lockable.

e. During closed hours, a sign shall be conspicuously posted stating that the pool, pool slide, water slide, or water attraction and deck are closed. See Section 13 for additional rules relating to the outdoor pool enclosure.

f. Landscaping planters, pots or other plant containers may not be placed on the required deck area. Landscaping features such as bark, gravel, shrubs, or flowers may be located within the pool enclosure but shall be separated from the pool by an additional five (5) feet of impervious area or maintained lawn, or the landscaping features must be installed in a four (4) inch depression and the depressed area must be surrounded by a forty-two (42) inch high barrier. Landscaped areas within a pool enclosure shall be continually maintained to prevent debris from entering the water. Trees used as landscaping features may not overhang the required deck area.

Sand may not be located within a pool enclosure unless the sand area is made inaccessible from the pool area by the location of a security-type barrier that is at least forty-two (42) inches high. There may be controlled entrances to the pool area if the entrances are controlled and provided with showers. If a Lazy River has mulch, the Lazy River shall have the mulch a minimum of twenty-four (24) inches away from the waters edge.

60. **Waterslide and Pool Slide Design**.

a. All waterslides and pool slides shall be designed and installed as required in Section 26.

b. Waterslide and pool slide lubrication shall be in accordance with Section 26, subparagraph d. Run-out slide flume lubrication systems shall comply with the requirements in Section 25, subparagraph c. (2) (b) & (c).

c. The portion of the pool water surface that is used as a plunge area for a pool slide or waterslide shall be continuously separated from other areas of the pool in a manner approved by the department as long as the slide is in use.

61. **Water attraction, play features, and slide design**.

a. General.

(1) Water attractions and play features shall be designed, assembled, constructed and maintained in accordance with recognized safe practices and so that maximum patron loads do not stress any part of the water attraction beyond recognized safe practices. For purposes of the preceding sentence "recognized safe practice" shall mean that the materials and methods used to assemble, disassemble, operate, transport, maintain, repair and modify the water attractions are:

(a) In accordance with the written specifications and procedures of the manufacturer, the owner's liability insurance carrier, nationally recognized standards, or the written standards of the department; or,

(b) In the absence of written specifications, procedures or standards, in accordance with the best practices of the skills and trades involved.

(2) Interior and exterior parts of all water attractions a patron may come into contact with shall be free of abrasives and splinters, sharp edges and corners, protruding studs, bolts, screws and other hazardous projections.

(3) Padding or other means to minimize injury due to patron impact resulting from the action of the water attraction shall be provided in accordance with recognized safe practice. For purposes of the preceding sentence "recognized safe practice" shall mean that the materials

and methods used to assemble, disassemble, operate, transport, maintain, repair and modify the padding or other means to minimize injury are used:

(a) In accordance with the written specifications and procedures of the manufacturer, the owner's liability insurance carrier, nationally recognized standards, or the written standards of the department; or,

(b) In the absence of written specifications, procedures or standards, in accordance with the best practices of the skills and trades involved.

(4) All hazardous parts, including but not limited to pinch points, and shear points of water attractions and play features, shall be enclosed, barricaded or otherwise arranged to effectively prevent injury in accordance with recognized safe practice. For purposes of the preceding sentence "recognized safe practice" shall mean that the materials and methods used to assemble, disassemble, operate, transport, maintain, repair and modify the hazardous parts are:

(a) In accordance with the written specifications and procedures of the manufacturer, the owner's liability insurance carrier, nationally recognized standards, or the written standards of the department; or,

(b) In the absence of written specifications, procedures or standards, in accordance with the best practices of the skills and trades involved.

(5) Guards removed for any purpose shall be replaced before normal operation of the water attraction is resumed.

(6) Wheels and levers used by patrons in the control of the action of the water attraction shall be designed and maintained to prevent pinches, strains, abrasions and body actions that could result in injuries. Wheels and levers shall be padded. Wheels shall have a solid center in lieu of spokes.

(7) Water attractions shall be fenced, barricaded or otherwise arranged in accordance with recognized safe practice, so that the public is effectively prevented from entering hazardous areas:

(a) General. All water attractions and associated slides shall be fenced, barricaded or otherwise arranged in accordance with recognized safe practice so that frequenters are effectively prevented from entering hazardous areas.

(b) Fences. When fences are provided according to Section 61, subparagraph a. (7) (a) they shall be constructed to meet all of the following requirements:

1 Fences shall be at least forty-two (42) inches.

2 Fences shall be constructed in such a fashion so as to reject a four (4) inch ball at all openings, including between the bottom of the fence and the surface upon which it rests.

3 Fences shall be designed, constructed and erected to inhibit overturning by spectators, swimmers, or patrons using the water attraction.

4 Where used, gates shall open away from the water attraction unless equipped with a positive latching device.

5 Gates shall be designed such that if opened, the gate will not contact the water attraction or cause a hazard to the swimmers.

(8) Fences shall be constructed to meet all of the following requirements:

(a) Fences shall be at least forty-two (42) inches above the surface on which the spectators or patrons stand.

(b) Fences shall be constructed to reject a four (4) inch ball at all openings, including between the bottom of the fence and the surface upon which it rests.

(c) Fences shall be designed, constructed and erected to inhibit overturning by spectators or patrons.

(d) Where used, gates shall open away from the water attraction unless equipped with a positive latching device.

(9) Gates shall be designed such that, if opened during the water attraction's operation, the gate will not contact the water attraction or cause a hazard to patrons.

(10) Fences and gates shall be constructed to inhibit spectator contact with the water attraction and patron contact with fences or gates. Horizontal members in a fence or gate may be used to improve construction or efficiency, but should be minimized to reduce the ease of climbing.

(11) Loading and unloading areas which are an integral part of the water attraction shall be separated from moving parts by barriers or guardrails.

(12) A flexible barrier, such as a rope or chain, may be used to prevent access to the passenger-carrying devices, provided the barrier is no longer than necessary and is controlled by an authorized attendant.

(13) Water attractions with moving sweeps shall be guarded by a standard guardrail or a center cover designed and maintained to safely support a minimum load of two-hundred (200) pounds.

(14) Where a spectator area is provided, it shall be separated by a railing or other barrier from the water area.

b. Interactive Play Attractions. All interactive play attractions shall comply with all of the following requirements:

(1) If access to the interactive play attraction is not restricted by an enclosure, an attendant shall be present.

(2) Water drains shall be in good working condition.

(3) Trees and vegetation may not be allowed in the interactive play attraction area.

(4) Water spray features shall be activated for thirty (30) minutes before the daily opening of the interactive play attraction.

(5) A ring buoy and shepherd's crook are not required to be present for an interactive play attraction.

62. **Maintenance, repair, and modifications of water attractions**.

a. General.

(1) Water attractions shall be maintained, repaired and modified in accordance with recognized safe practice. For purposes of the preceding sentence "recognized safe practice" shall mean that the materials and methods used to assemble, disassemble, operate, transport, maintain, repair and modify the water attractions are:

(a) In accordance with the written specifications and procedures of the manufacturer, the owner's liability insurance carrier, nationally recognized standards, or the written standards of the department; or,

(b) In the absence of written specifications, procedures or standards, in accordance with the best practices of the skills and trades involved.

(2) Improperly maintained, repaired or modified water attractions may not be opened to the public.

(a) Defective, improper, worn or missing parts shall be replaced or repaired. Maintenance, repair and replacement parts shall be of a quality equal to or better than the original parts.

(b) All work shall be performed by a competent qualified mechanic capable of understanding the function of the parts and the proper installation.

(c) Non-graded bolts, nails, fasteners and wire shall be used only for their intended purposes.

(d) Rotted, split or otherwise structurally unsound material shall be replaced.

b. Inspections and Testing.

(1) General. The owner shall arrange for all water attractions to be periodically inspected and for operational tests to be performed as specified in this subsection. Such inspections and tests shall be documented by written records and the records shall be kept as specified in Section 57, subparagraph c.

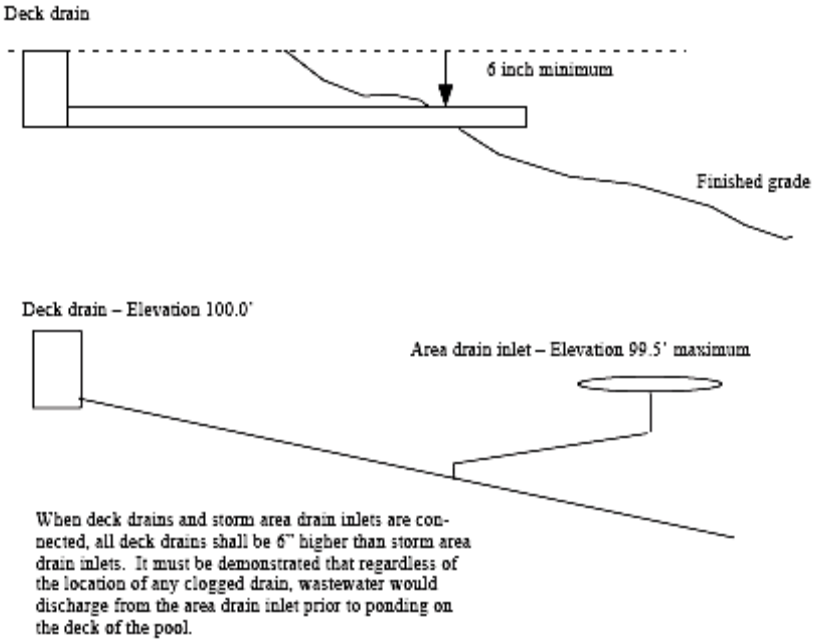
(2) Daily inspection and operational testing. Water attractions and all pool slides shall be inspected and their operation tested each day before use by patrons. The inspection and operational test shall include the operation of all control devices and safety equipment.

(3) Waterslide inspection. Every five (5) years all waterslides shall be evaluated by an engineer for the structural stability and integrity of the slide and platform. A copy of a report signed by the engineer shall be kept on site as pursuant to Section 57.

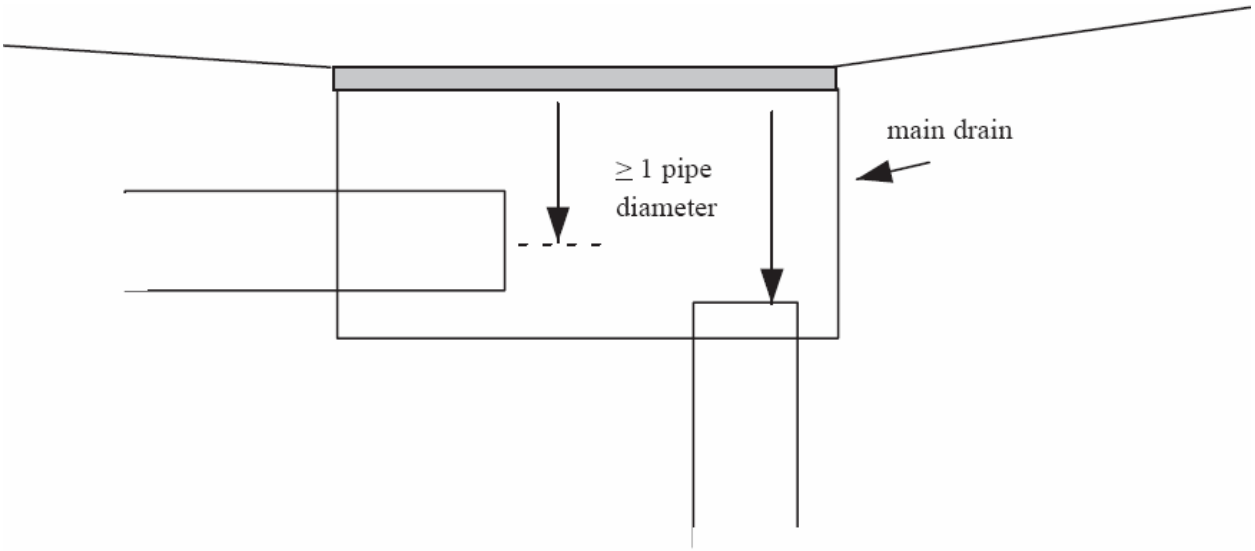
CHAPTER IV – ADDITIONAL INFORMATION

63. **Additional Information**. The material contained in Chapter IV is for clarification purposes only. The notes, illustrations, etc., are numbered to correspond to the number of the rule as it appears in the text of this *Pool Ordinance* (3 HCC § 8).

a. Outdoor pool deck drain discharge point. See Section 12, subparagraph b. (2).



b. Main drain piping. See Section 14, subparagraph f. (2) (b). .



c. Minimum number of plumbing facilities. See Section 19, subparagraph a.

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

OCCUPANCY	FLOOR AREA IN SQ. FT. PER OCCUPANT
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross

d. Fixed seating. See Section 19.

(1) For areas having fixed seats and aisles, the occupant load shall be determined by the number of fixed seats installed therein.

(2) For areas having fixed seating without dividing arms, the occupant load shall not be less than the number of seats based on one (1) person for each eighteen (18) inches or four-hundred and fifty-seven (457) mm of seating length.

(3) The occupant load of seating booths shall be based on one (1) person for each twenty-four (24) inches or six-hundred and ten (610) mm of booth seat length measured at the backrest of the seating booth.

e. Minimum Number of Plumbing Facilities. See Section 19, subparagraph a.

MINIMUM NUMBER OF PLUMBING FACILITIES [a]

OCCUPANCY	WATER CLOSETS (see s. Comm 62.2902(1) for urinals)		LAVATORIES	BATHTUBS/ SHOWERS	DRINKING FOUNTAINS (see the *International Plumbing Code*)	OTHERS
	Male	Female				
Theatres, halls, museums, etc. [+]	1 per 100	1 per 75	1 per 200	—	1 per 500	1 service sink

[+] Public swimming pools and water attractions are included here.

f. Nationally Recognized Listing Agencies. See Section 19. Nationally Recognized Listing Agencies Acceptable to the Ho-Chunk Nation Department of Labor:

(1) American Gas Association (AGA)
400 N. Capital Street, N.W.
Washington, DC 20001
Phone: (202) 824-7000
Fax: (202) 824-7115

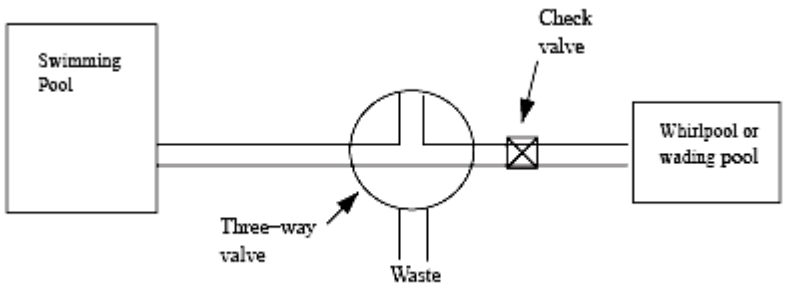
Web page: http://www.aga.org

(2) ETL Intertek Testing Services NA, Inc.
(ITS)
3233 US Route 11
Cortland, NY 13045
Phone: (607) 753-6711
Web page: www.intertak-testing.com

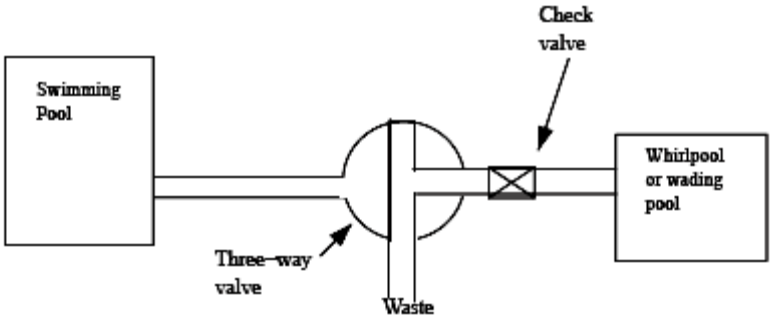
(3) American Society of Mechanical Engineers
ASME International
1828 L Street, NW, Ste. 906
Washington, DC 20036
Phone: (202) 785-3756
Fax: (202) 429-9417
Web page: http://www.infocentral@asme.org

(4) Underwriters Laboratories Inc. (UL)
333 Pfingsten Road
Northbrook, IL 60062-2096
Phone: (847) 272-8800
Fax: (847) 272-8129
E-mail: northbrook@us.ul.com
Web page: http://www.ul.org/

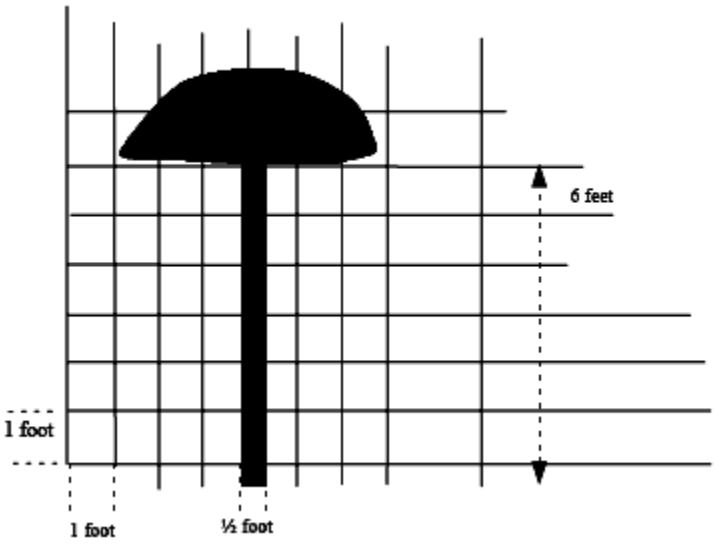
g. Filling options for wading pool or whirlpool from a swimming pool. See Section 21, subparagraph b. (5).



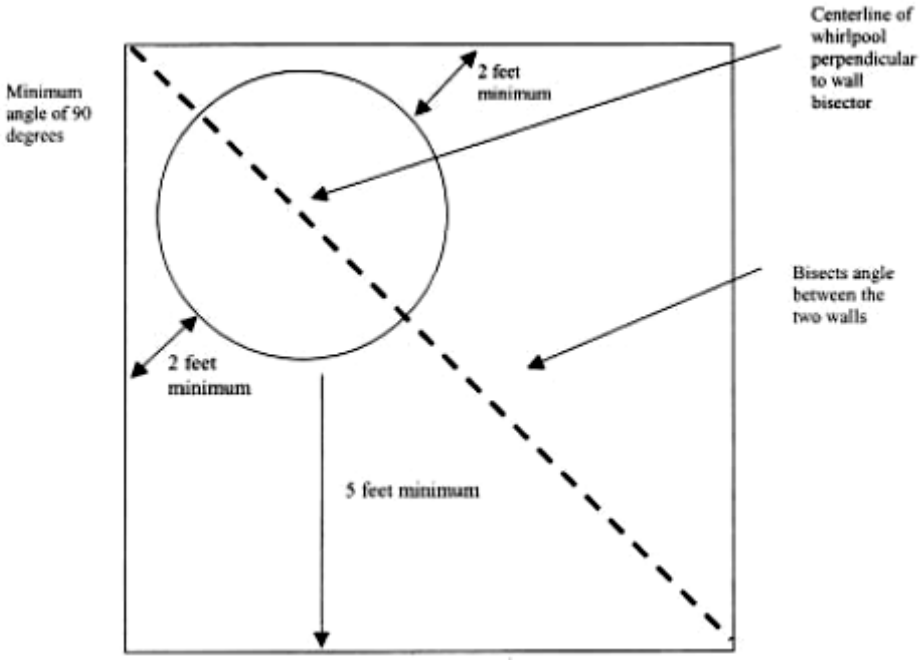
h. Operational position option for three (3) way valve filling wading pool or whirlpool from a swimming pool. See Section 21, subparagraph b. (5).



i. Obstructions extending from the bottom of a wading pool. See Section 21, subparagraph c. In this sample sketch, the obstructed area between the water level to a height of six (6) feet (using ½ foot as the width of the obstruction) equals three (3) square feet. This obstruction would be permitted in a wading pool without a lifeguard staffing plan.



j. Whirlpool location. See Section 22, subparagraph f. (1) (b). Sample sketch depicting whirlpool location and measurements for access.



k. Drain layout details for suction fittings. See Section 23, subparagraph h. (7).

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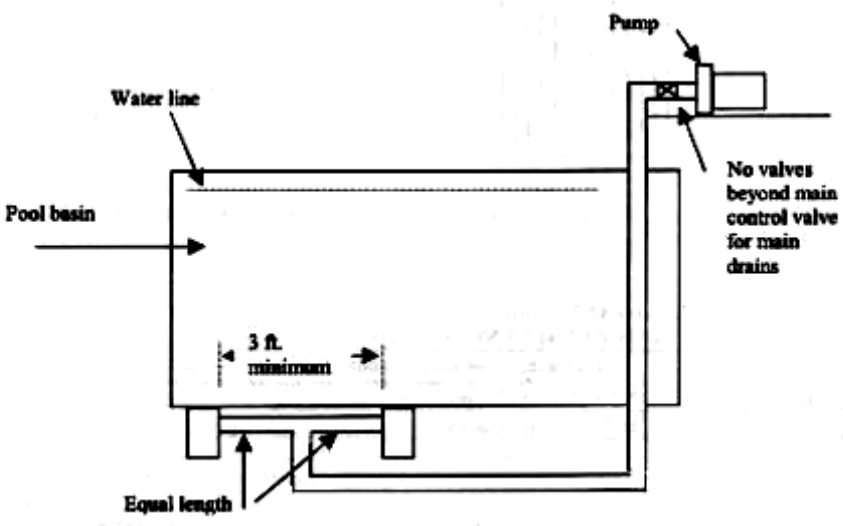
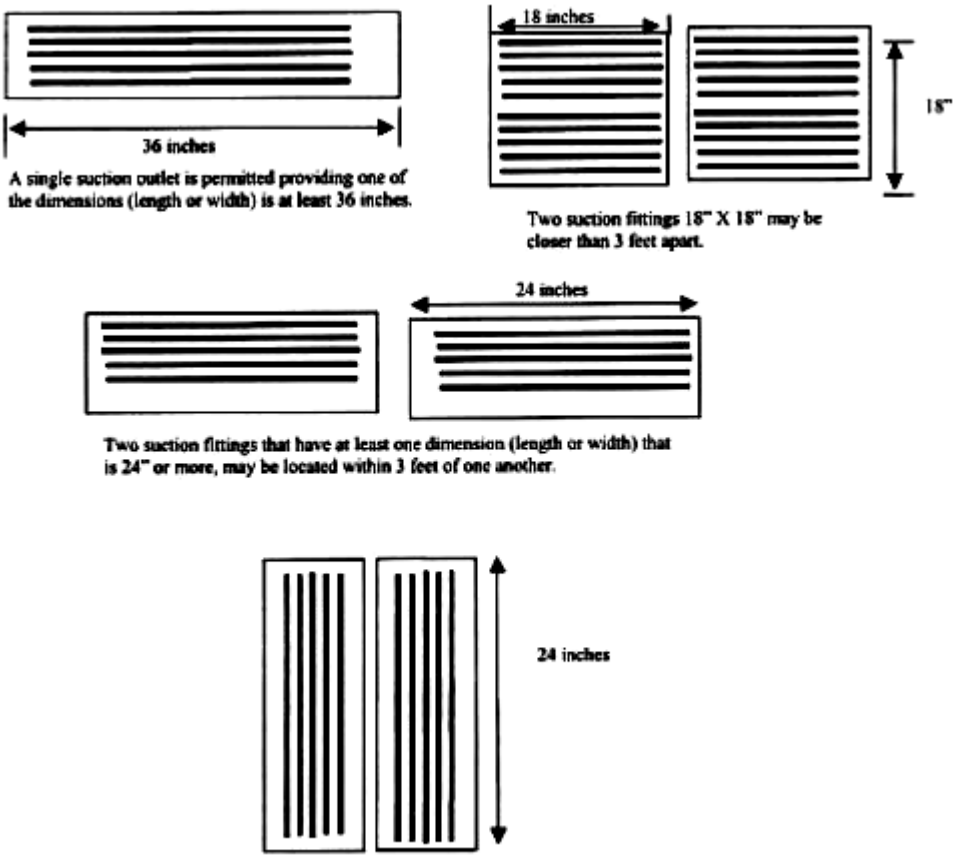


l. Suction outlet options. See Section 23, subparagraph h. (7). .

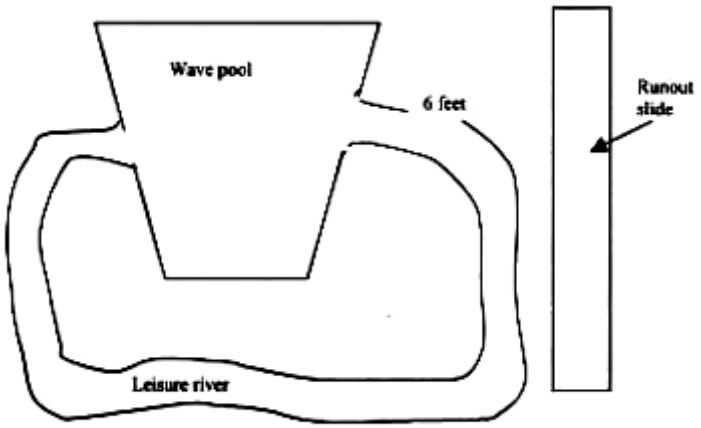


m. Swimming pool source and makeup water. See Section 23, subparagraph l.

PLUMBING TREATMENT STANDARDS

Intended Use	Plumbing Treatment Standards
1. Swimming pool makeup water	NR 811 and 812 approved sources
2. Swimming pool fill water	Requirements in Chapter III

n. Calculating turnover times. See Section 23, subparagraph d.



Where a runout slide is connected to a pool basin, the following method is used to calculate turnover time.

Leisure river = 40,000 gallons at a turnover time of 2 hours
Wave pool = 50,000 gallons at a turnover time of 2 hours
Basin requires a turnover time of 2 hours for 90,000 gallons

The first runout slide connected to a basin requires that an "imaginary plunge pool" volume is considered in the calculation. That volume must be turned over at a one–hour turnover time, as provided in Table 23-3. Subsequent runout slides are calculated with an additional 4,500 gallons per slide.

This 'imaginary volume' is subtracted from the total volume of the basin:
As an example, a volume of 6,700 gallons is subtracted from the total volume of the basin.

90,000 gallons – 6,700 gallons = 83,300 gallons

The remainder of the basin (83,300 gallons) will have a turnover time of 2 hours, while the 6,700 gallons will be turned over in one hour.

83,300 at 2–hour turnover time requires a pump with a discharge rate of 695 gpm (83,300/120)
6,700 at one–hour turnover time requires a pump with a discharge rate of 112 gpm (6,700/60)

The pump capacity at the total dynamic head required is 807 gpm.

The basin plus the runout slide turnover time for this example is: 90,000 gallons/807 gpm or 1.86 hours.

o. Children's slide obstruction in wading pools. See Section 26, subparagraph c. (1). .

The square footage of the obstruction between the water level to a height of six (6) feet for the obstruction shown is forty-eight (48) square feet. This obstruction is Ordinance compliant, without a lifeguarding staffing plan.

p. Allowable discharge points for pool wastewater shall be controlled by the Water Utility Ordinance (3 HCC § 7) relating to allowable discharge points for public swimming pools.

LEGISLATIVE HISTORY

6/6/2000 Nation enacts an *Environmental and Public Health Ordinance* (3 HCC § 6) which includes Section 10 which provides:

10. Adoption of Safety, Maintenance and Operation of Public Swimming Pools and Water Slides Rules and Regulations. There is hereby adopted, for the purpose of establishing reasonable rules and regulations for the sanitary and safe maintenance and operation of the public swimming pools of the Nation, the Wisconsin Administrative Code, Chapter HFS 172, Safety, Maintenance and Operation of Public Swimming Pools (except for provisions noted in herein), and any amendments thereto that may from time to time be made, and the whole thereof, as set forth fully therein.

a. Policy. Environmental Health Services shall enforce Wisconsin Administrative Code, Chapter HFS 172, Safety, Maintenance and Operation of Public Swimming Pools, except for Sections 172.04 and 172.15, to regulate the maintenance and operation or public swimming pools, including whirlpools, in order to protect the health and safety of the public.

b. Special Provision.

(1) Establishments with pools shall submit on a monthly basis, the daily pool operation records to Environmental Health Services. Records shall be maintained on site in accordance with HFS 172.11.

(2) The Department shall keep and maintain sufficient copies of HFS 172 to enable it to provide one to each Nation establishment operating a public swimming pool.

06/09/2000	Nation signs agreement with the State of Wisconsin agreeing that the Nation shall set forth public health and safety standards for facilities used by the public that are at least as restrictive as those standards set forth in Chapter 254, Wisconsin Statutes, and the administrative rules adopted thereunder including but not limited to Wisconsin Administrative Code HFS 172, Safety, Maintenance and Operation of Public Swimming Pools.
11/04/08	Legislature passes Resolution enacting Pool Ordinance.