

Clearinghouse Rule 06-086

PROPOSED ORDER OF DEPARTMENT OF HEALTH AND FAMILY SERVICES TO ADOPT RULES

The Wisconsin Department of Health and Family Services proposes to repeal and recreate ch. HFS 172 relating to pools and water attractions, and relating to small business.

SUMMARY OF PROPOSED RULE

Statute interpreted: Sections 254.47 and 254.85, Stats.

Statutory authority: Sections 227.11 (2), 250.04 (1) and (7) and 254.47, Stats.

Explanation of agency authority: Chapter 254, Stats., allows for the creation and revision of HFS 172, which provides for the protection of the health of the public who use recreational or therapeutic water facilities, by licensing and regulating the operation of these entities. Section 250 defines licensable pools and water attractions and references chapter Comm 90 of the Wisconsin Administrative Code, which establishes minimum construction standards. Chapter 254, Stats., also provides for the protection of the health of the public who use recreational or therapeutic water facilities, by licensing and regulating the operation of these entities.

Related statute or rule: Sections 145.26, 254.64 (4), 254.69, Stats., and chs. Comm 90 and HFS 140, Wisconsin Administrative Code.

Plain language analysis:

The Department of Commerce has authority related to the design and construction of public pools and water attractions, including plan approval and supervision of construction. When a facility has been properly designed and built, the Department of Health and Family Services (DHFS) then reviews the pool for operation, safety and maintenance and gives the pool a permit to operate if all conditions of ch. HFS 172 are met.

DHFS proposes revisions to ch. HFS 172 based on recent scientific research and extensive input from pool designers and operators. The rule will generally not have an effect on standard rectangular pools and whirlpools that have not made changes resulting in increased risk. Waterslides that were previously regulated by the Department of Commerce, are included in these rule revisions, requiring permitting, either separately or as a pool appurtenance, and annual inspection by DHFS for operation and safety. A certified structural engineer will be required to evaluate the physical condition of the slide every 5 years for bolt degradation and physical stress load capabilities.

The rule also proposes changes related to lifeguard and attendant staffing, to add flexibility in these plans.

Chapter HFS 172 of the Wisconsin Administrative code is proposed to correspond to the recent changes made by the Department of Commerce in chapter Comm 90 of the Wisconsin Administrative Code.

The Certified Pool Operator (CPO) requirement is proposed only for operators of water attractions. Traditional pools used for swimming, diving, wading, relaxation, or therapy would not require certified operators. Water attractions include activity pools, leisure rivers, plunge pools, water slides, vanishing edge pools, vortex pools, and wave pools. CPO training and registration can be obtained through two national organizations, and the Department will evaluate other organizations upon request. Currently, there are 4000 licensed pools in WI; over 50% are managed by a CPO, including nearly all water attractions. Thus, the requirement to have a CPO will have minimal impact, as the industry already recognizes the importance of and has trained operators accordingly.

Summary of, and comparison with, existing or proposed federal regulations: There are no current federal regulations for public pools and none proposed.

Comparison with rules in adjacent states:

The emphasis of this proposed rule relates to water attractions (waterslides, interactive play attractions, activity pools, etc). A comparison of the four neighboring states found that all have regulations for public swimming pools. Waterslides are regulated by the Department of Health in all four states, and Certified Pool Operators are required for all pools in Minnesota, Iowa, Michigan and Illinois. Lifeguards are also required in each state. Wisconsin has many new water attractions neighboring states have not yet created; therefore, lifeguard regulations specifically for complex water attractions are not yet established in those neighboring jurisdictions. Michigan and Minnesota have very similar rules and inspectional procedures, while Illinois and Iowa function with more decentralized state government, and local jurisdictions inspect at varying frequencies.

Summary of factual data and analytical methodologies: DHFS formed a committee for the revision of ch. HFS 172, taking advantage of a positive ongoing relationship with the American Red Cross, pool manufacturers and operators and the WI Innkeepers Association. Committee members included:

- Todd Winkler, Wisconsin Innkeepers Association, owner of Holiday Inns
- Tom Carrico, commercial pool industry
- Bob Kappel, Neuman Pools Representative, commercial pool industry
- Jason Hammond, Family Land Water Park
- Don Lauritzen, American Red Cross
- Lynita Docken, Department of Commerce
- Todd Drew, Menasha Health Department
- Steve Todd, Waukesha County Health Department
- Duane Jackson, Madison City Health Department
- Dave Krey, Milwaukee Health Department
- Mary Ellen Bruesch, Communicable Disease Section, Milwaukee Health Department
- Tracynda Davis, Department of Health & Family Services

The proposed revisions discussed above were formulated during a series of meetings of owners and operators, designers, architects and engineers.

DHFS met and discussed administrative rule revisions related to public pools with the New York State Health Department. DHFS also attended the ten-state Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers Swimming Pool and Bathing Beach Advisory meetings to assist in revising the existing Great Lakes standard.

Data such as the number of licensed pools in Wisconsin, come from the ESS system, the licensing module used by the Department for the past 5 years

Analysis and supporting documents used to determine effect on small business:

Since the last revision to ch. HFS 172 in 1989, the water recreation industry has changed significantly. The newly revised code addresses many pool types, and is designed to allow sufficient flexibility for the development of new types of water attractions in the future. Also, as of May 2004, pool and water slides, formerly inspected by the Department of Commerce, will now fall under the purview of DHFS. A Memorandum of Understanding is being developed between the Department of Commerce and DHFS to ensure ongoing seamless approval and inspection of pool slides. The new rule provisions also address additional appurtenances such as climbing and walking features.

These code provision changes should have a minimal impact on small business. The water recreation industry and the operators of small businesses with pools were well represented on the advisory committee, and consensus was obtained before these final rule changes were proposed.

This rule revision will not impose significant increases in licensing and operating fees. 90% of the 4,000 pools in Wisconsin will not be affected by these revisions. The 10% of pools that will be affected include the largest facilities, most of which already meet the CPO and life guarding requirements, and potentially include poorly or illegally operated pools.

The following issues from the revision of ch. HFS 172 may potentially affect small business operators:

- Lifeguard requirements
 - CPO requirements
 - Fees for inspections, pre-inspections, re-inspections, and operating without a license
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- Lifeguards: There are nearly 4,000 licensed individual pools in Wisconsin, but only half of those pool facilities include 2 or more pools. DHFS has no current definitive breakdown of the number of facilities the new lifeguarding requirements would affect, but estimates that perhaps 200 to 300 facilities will fall under the provisions of this rule, and most of these facilities are already in full compliance. These rule revisions alter the codified lifeguard requirements, but are not necessarily more stringent. There will be ongoing costs related to the turnover in lifeguard positions, but water attraction operators build lifeguard costs into their business plans. Labor and training costs are detailed below.
 - Revenue analysis of lifeguard staffing plans: The range of revenues regarding pool operations is vast. Many pools show no direct income; e.g., hotels or apartment complexes that do not charge for admission to the pool. Nor is there a definable difference in occupancy rates between properties with a pool versus properties without. Alternatively, there are large water attractions in Wisconsin that generate millions of dollars in revenue from their extensive water attractions.
 - While 98% of pool operators qualify as small businesses, the biggest 5% of pool operators have facilities requiring life guarding and therefore the majority of operators will not be affected by these rule changes, as these facilities are already in compliance. Moderately sized hotels have recently begun expanding their pools by adding slides, interactive play features, etc. These facilities will feel the impacts of the rules the most, because they are approaching the line distinguishing a public pool from a water attraction. These facilities will need to hire staff members to

- A Certified Pool Operator is an expert at maintaining water quality and pool safety, establishing policies and procedures to provide a constant safe environment, and training staff. Certified Pool Operators are also trained in monitoring and testing pool water, in order to maintain proper pool chemical balances.
- The test kit reagent required in these rule revisions is less expensive than kits currently used. Since pools are tested up to 4 or more times per day, over time, this will mean a considerable savings to the industry.
- The new fees require services to be paid for by the operators who require the services rather than by dividing them among all operators.

Effect on small business:

Operations that are built or redesigned so that pools will be direct sources of income will face additional training and labor costs as outlined above. Most pools in Wisconsin are simple swimming pools or spas designed and operated as an amenity to lodging. These operations will feel little or no impact from the proposed revisions.

Agency contact person:

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Place where comments are to be submitted and deadline for submission:

Comments may be made via the Wisconsin Administrative Rules Website at <http://adminrules.wisconsin.gov> or to Tracynda Davis at the address, telephone number or email address listed above until August 17, 2006.

TEXT OF PROPOSED RULE

SECTION 1. Chapter HFS 172 is repealed and recreated to read:

SAFETY, MAINTENANCE AND OPERATION OF PUBLIC POOLS AND WATER ATTRACTIONS

Subchapter I – Administration

- HFS 172.01 Authority and purpose
- HFS 172.02 Scope
- HFS 172.03 Approved comparable compliance
- HFS 172.04 Definitions
- HFS 172.05 Permits
- HFS 172.06 Fees
- HFS 172.07 Enforcement
- HFS 172.08 Suspension or revocation of permit
- HFS 172.09 Appeals of actions by the department
- HFS 172.10 Appeals of actions by agent health departments

Subchapter II – Water Treatment Systems and Water Quality

- HFS 172.11 Recirculation system
- HFS 172.12 Labeling, storing, mixing, and handling chemicals
- HFS 172.13 Disinfectant feeders and filter aid equipment
- HFS 172.14 Disinfectant feeding and residuals
- HFS 172.15 Alternative disinfection systems
- HFS 172.16 Water quality
- HFS 172.17 Water test kits
- HFS 172.18 Water testing frequency
- HFS 172.19 Water supply and temperature

Subchapter III - Staffing Public Pools and Water Attractions

- HFS 172.20 Operator
- HFS 172.21 Responsible supervisor
- HFS 172.22 Lifeguards and attendants
- HFS 172.23 Lifeguard and attendant placement and staffing requirements
- HFS 172.24 Instructional programs

Subchapter IV – Operation and Management

- HFS 172.25 Permissible patron load
- HFS 172.26 Rescue equipment
- HFS 172.27 First aid supplies
- HFS 172.28 Food and drink
- HFS 172.29 Posting pool and water attraction rules
- HFS 172.30 Public pool and water attraction closing criteria
- HFS 172.31 Fecal accident response
- HFS 172.32 Monthly reports and records
- HFS 172.33 Facility maintenance, repair and sanitation

Subchapter V Public Pool, Slide, and Water Attraction Construction and Design

HFS 172.34 Public pool design

HFS 172.35 Waterslide and pool slide design

HFS 172.36 Water attraction, play features and slide design

HFS 172.37 Maintenance, repair, and modifications of water attractions

SUBCHAPTER I - ADMINISTRATION

HFS 172.01 Authority and purpose. This chapter is promulgated under the authority of ss. 250.04 (1) and (7) and 254.47, Stats., to regulate the maintenance and operation of public pools and water attractions in order to protect the health and safety of the public.

HFS 172.02 Scope. (1) This chapter applies to operators of public pools and water attractions, including slides, interactive play features, and other appurtenances.

(2) This chapter does not apply to a pool serving fewer than 3 residences such as homes or apartments that are used by the owner or persons making the property their primary residence.

HFS 172.03 Approved comparable compliance. (1) 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, when 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.

(2) An alternative approved under sub. (1) may, at the department's discretion, be made conditional for any of the following:

- (a) A defined period of time.
- (b) Experimental or trial purposes.

HFS 172.04 Definitions. In this chapter:

(1) "Activity pool" means a water attraction with a depth greater than 24 inches (61 cm) designed primarily for play activity that uses constructed features and devices including pad walks, flotation devices and similar attractions.

(2) "Actual patron load" means the number of patrons in the water.

(3) "Adult" means a person 18 years of age or older.

(4) "Agent" means the city, county or village designated by the department under s. 254.69 (2), Stats., and ch. HFS 192 to issue permits to and make investigations or inspections of public pools and water attractions.

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

(6) "Attendant" means a person trained to operate a pool or water attraction, including slides and other appurtenances, and control patrons in a safe and orderly manner.

(7) "Breakpoint chlorination" means establishing a hygienic environment in the pool by raising the free available chlorine level to 10 times the combined chlorine level.

(7g) "Certified pool operator" means an operator who is certified by successful completion of at least one 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.

(7r) "CPR" means cardiopulmonary resuscitation.

(8) "Children's slide" means a slide that has a maximum height of 4 feet (1.2 m) as measured vertically from the slide entrance to slide terminus, and located in less than 24 inches (61 centimeters) of water.

(9) "Cold soak pool" means a public pool that uses cold water for therapy.

(10) "Combination pool" means a public pool that is used for swimming and diving.

(11) "Current pool" means a public pool that creates a current for the purpose of exercise.

(12) "Deck" means the approved, unobstructed walking surface immediately adjacent to a public pool or water attraction.

(13) "Deep portion" means a water depth greater than 5.5 feet.

(14) "Department" means the Wisconsin department of health and family services.

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

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

(17) "Engineer" means a registered professional engineer currently licensed in Wisconsin.

(18) "Entry access point" means the area in which a patron enters a water attraction.

(19) "Erosion feeder" 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.

(20) "Exercise pool" means a public pool of shallow depth that operates with or without a current channel.

Note: Exercise pools are usually associated with health spas.

(21) "Filter aid" means finely powdered diatomaceous earth or similar approved material used to coat a septum type filter.

(22) "Flume" means that part of a slide within which sliding takes place.

(23) "Free chlorine residual" means the amount of hypochlorous acid remaining in the pool as determined by a diethyl-p-phenylene diamine test kit or approved equivalent.

(24) "Injury or illness report" means the written record of all facts regarding an accident resulting in bodily harm associated with a public pool or water attraction.

(25) "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.

Note: Splash pads and spray pads are examples of interactive play attractions.

(26) "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.

(27) "Lifeguard" means a person holding the following certifications:

(a) Lifeguard certification, limited to one of the following:

1. A current American Red Cross Lifeguard Training certificate.
2. A Young Men's Christian Association Lifeguarding certificate.
3. A National Pool and Waterpark Lifeguard Training program certificate.
4. National Aquatic Safety Company Lifeguard Training Program.

Note: 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.

5. Other lifeguard certification approved by the department.

(b) First aid certification, limited to one of the following:

1. A current standard first aid certificate from the American Red Cross.
2. Other first aid certification approved by the department.

(c) CPR, limited to one of the following:

1. A current certificate from the American Red Cross "CPR for the Professional Rescuer" course.

2. A current certificate from the American Heart Association "CPR for the Healthcare Professional".

3. A current certificate from the American Safety and Health Institute "CPR Professional Level CPR/AED".

4. A current certificate from American Academy of Orthopedic Surgeons/Emergency Care and Safety Institute Professional Rescuer CPR”.

5. Other CPR certification approved by the department.

(28) “Lifeguard and attendant staffing plan” means a written description on how lifeguards and attendants will be used at public pools and water attractions.

(29) “Material safety data sheet” means written information that details the hazards associated with a chemical and gives information on its safe use.

(30) “Non-tethered floatable” means a floatation device added to a pool or water attraction that is not tethered to the pool basin, allowing movement of the device around the pool. Rubber tubes in leisure rivers and swim wings are not considered non-tethered floatables.

(31) “NSF” means national sanitation foundation.

(32) “Operator” means the owner of a public pool or water attraction or the person responsible to the owner for the operation of a public pool or water attraction including the mechanical systems operations of the public pool or water attraction.

(33) “Owner” means a municipality, corporation, company, association, firm, partnership or individual owning or controlling any public pool or water attraction.

(34) “Pad walk” means a tethered floatable under rope and netting in an activity pool that allows a patron to cross the public pool using his or her hands.

(35) “Patron” means a user of a public pool, or water attraction.

(36) “Patron load” means the number of patrons in a body of water of a public pool or water attraction.

(37) “Person” means an individual, partnership, association, firm, company, corporation, municipality, county, town or state agency, whether tenant, owner, lessee or licensee, or the agent, heir or assignee of any of these.

(38) “Plunge pool” means a public pool with a depth of greater than 24 inches (61cm), located at the exit end of a waterslide flume and intended and designed to receive a patron emerging from the flume.

(39) “Pool and water attraction area” means, in an outdoor facility, the public pool or water attraction and the area within the basin’s enclosure and, in an indoor facility, the public pool or water attraction and the required deck as specified in s. Comm 90.09.

(40) “Pool slide” means a slide where the drop from the slide terminus to water is less than 20 inches (50.8 cm) and the flume carries less than 100 gallons of water.

(41) “Public pool” means a pool or water attraction that is a structure, basin, chamber or tank, appurtenant buildings and equipment, used for wading, swimming, diving, water recreation or therapy installed in a “place of employment,” as defined in s. 101.01(11), Stats., or in a “public building,” as defined in s. 101.01(12), Stats., or a pool serving or installed for the state, a political subdivision of the state, a motel, a hotel, a tourist rooming house, a bed and breakfast

establishment, a resort, a camp, a campground, a club, an association, a housing development, a school, a religious, charitable or youth organization, or an educational or rehabilitative facility. Types of pools include swimming pools, combination pools, diving pools, exercise pools, experiential pools, mobile pools, therapy pools, wading pools, whirlpools, and cold soak pools.

“Public pool” does not include a pool that only serves fewer than 3 individual residences, such as homes or apartments, unless such pool is used on a regular basis by persons other than the residents.

Note: For purposes of this chapter, a housing development may mean an apartment complex, condominium complex or housing complex having a “homeowners’ association.” For purposes of this chapter, “public pool” has a slightly broader meaning than in s. 145.26, Stats., and s. Comm 90.03 (21).

(42) “Responsible supervisor” means a person designated by the operator to maintain compliance with regulations governing safety and sanitation of a public public, a water attraction, a pool slide , or a waterslide.

(43) “Run-out slide” means a slide on which a patron does not exit into a plunge pool, but has a deceleration area that permits the patron to stop before exiting.

(44) “Slide terminus” means the last 10 feet (3.05 meters) of a slide flume discharging into a public pool or water attraction.

(45) “Superchlorination” means the addition of an oxidizing product such as chlorine to public pool water to raise the level of the oxidizer to a point that will achieve the breakdown of combined chlorine and organic compounds. “Superchlorination” is sometimes referred to as “superoxidation”.

(46) “Tethered floatable” means a play item or floatation device that is affixed to the basin of a public pool to restrict movement of the item.

(47) “Unauthorized access” means the entrance of a person into a restricted area without permission of the operator or the operator’s designated representative.

(48) “Therapy pool” means a public pool used for medically administered physical therapy.

(49) “Turnover time” means the time for a given volume of water to pass through the recirculation system.

(50) “Vanishing edge pool” means a water attraction that has no above-water line wall on one or more sides for which water spills over the edge.

(51) “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.

(52) “Wading pool” means a shallow public pool having a maximum depth of 24 inches (61 cm) and intended for children’s play.

(53) “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 and any public pool with play features except wading pools.

(54) "Water attraction complex" means a facility where a water attraction is located within an enclosure or room with another water attraction or public pool.

(55) "Waterslide" means a slide where a water flow of 100 gallons of water per minute or more is intended to carry a rider down a flume.

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

(57) "Whirlpool" means a small public pool, sometimes called a "spa", which uses higher temperature water than other public pools and may include a water agitation system.

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

HFS 172.05 Permits. (1) GENERAL. (a) *Permit required.* No public pool or water attraction may be opened to the public until the owner of the pool or water attraction has obtained a permit from the department or its agent. If any one of the following circumstances applies, a new permit is required:

1. A public pool or water attraction for which a permit has been issued is later modified.

2. A permit holder sells or otherwise transfers ownership or operation of a public pool or water attraction to another person, except that an individual may transfer a permit to an immediate family member, as defined in s. 254.64 (4) (a) 2, Stats., if the individual is transferring operation of the pool, and a sole proprietorship that reorganizes as a business entity, as defined in s. 179.70 (10), Stats., or a business entity that reorganizes as a sole proprietorship or a different type of business entity may transfer a permit to the newly formed business entity or sole proprietorship if the public pool remains at the location for which the permit was issued and at least one individual who had an ownership interest in the sole proprietorship or business entity to which the permit was issued has an ownership interest in the newly formed sole proprietorship or business entity.

Note: Section 254.64 (4) (a) 2, Stats., reads: "Immediate family member" means a spouse, grandparent, parent, sibling, child, stepchild, or grandchild or the spouse of a grandparent, parent, sibling, child, stepchild, or grandchild." under section 179.70 (1), Stats., a "business entity" means: a corporation, as defined in s. 180.0103 (5), Stats., a limited liability company, as defined in s. 183.0102 (10), Stats., a limited partnership, or a corporation, as defined in s. 181.0103 (5), Stats., a foreign limited liability company, as defined in s. 183.0102 (8), Stats., a foreign limited partnership, a foreign corporation, as defined in s. 180.0103 (9), Stats., or a foreign corporation, as defined in s. 181.0103 (13), Stats.

(b) *Operating after sale, transfer, or modifications.* No public pool or water attraction that has been modified, or sold or transferred except as provided in par. (a) 2. shall be opened to the public until the department has issued a new permit as specified sub. (3).

(2) APPLICATION. No public pool or water attraction may be opened to the public until the owner of the public pool or water attraction has obtained a permit from the department or its agent.

Application for an initial or renewal permit shall be made on an application form furnished by the department or its agent and shall be accompanied by all of the following:

(a) The applicable fee specified under s. HFS 172.06 and any fees previously due to the department or its agent.

(b) Proof that the department of commerce under s. Comm 90.04 (1), has approved plans and specifications for the public pool or water attraction, including modifications, and evidence that the approval is not expired or revoked.

(c) A statement from an engineer who worked on the public pool or water attraction that was completed in accordance with the public pool or water attraction's construction plan under s. Comm 90.04.

(d) Information as determined by the department or its agent to ensure that the public pool or water attraction is or will be maintained and operated in a manner pursuant to applicable federal and state laws, and rules and that will protect the health, safety, and welfare of the public.

Note: To obtain a copy of the application form for a permit to operate a pool or water attraction or to determine which agent to contact for an application form, write or phone: Bureau of Environmental and Occupational Health, P.O. Box 2659, Madison, Wisconsin 53701-2659 (608-266-2835).

(3) ISSUANCE, RENEWAL OR TRANSFER OF PERMITS. (a) *Initial permit.* The department or its agent shall issue or deny a permit within 30 days after receiving a complete application, all applicable fees, and any other required information. If the department or its agent denies an application for a permit, the applicant shall be furnished reasons, in writing, for the denial, and given instruction regarding appeal rights. The department or its agent may not issue or renew a permit to operate a public pool or water attraction under any of the following circumstances:

1. The department or its agent has not conducted a pre-inspection of the public pool or water attraction.

2. The owner of a public pool or water attraction has not corrected a condition for which the department or agent has issued a written safety-related order.

3. The application fee did not accompany the application or other applicable fees, including re-inspection fees that have not been paid in accordance with the fee provisions in s. HFS 172.06 (1) (c).

4. The owner has modified, repaired or maintained the public pool or water attraction in a manner that is not in accordance with what the department recognizes as safe practice.

5. The owner, applicant, or permit holder fails to provide the department with requested information.

6. The owner or applicant has violated ch. 254, Stats., this chapter, or any order, ordinance, or regulation created by a village, city, county, or local board of health having jurisdiction.

(b) *Permit duration.* Each initial or renewal permit shall expire on June 30, except that a permit that is initially issued during the period beginning on April 1 and ending on June 30 will expire on June 30 of the following year.

(c) *Permit renewal.* Each permit issued under this chapter shall be renewed with the department annually by paying the applicable fee specified under s. HFS 172.06 (1) (c) at least 15 days before the expiration of the permit.

(d) *Voiding a permit.* If an applicant or owner fails to pay all applicable fees, late fees and the processing charges within 15 days after the applicant or holder receives notice of an insufficiency under s. HFS 172.06 (2), the permit is void. An owner whose permit is voided under this paragraph may appeal the decision under s. HFS 172.08 (3) or s. HFS 172.09 as applicable. During any appeal process concerning payment a dispute, operation of the establishment in question is deemed to be operation without a permit, and is subject to the fees contained in Table HFS 172.05.

(4) TRANSFERABILITY OF PERMITS. No permit issued under this chapter is transferable from one premises to another or from one person or entity to another, except as provided in sub. (1) (a) 2.

(5) PERMIT POSTING. A permit shall be posted in a place visible to the public. A permit may not be altered or defaced.

HFS 172.06 Fees. (1) GENERAL. (a) *Pre-inspection fee.* The owner of a public pool or water attraction shall pay the applicable pre-inspection fee listed in Table HFS 172.06 to the department before an initial permit is issued or when there is a change of owner or operator, except as provided in s. HFS 172.05 (1) (a) 2. Pre-inspection fees apply to all new construction or modification of an existing pool or water attraction and shall be paid before a permit is issued.

(b) *Renewal permit fee.* The owner of a public pool or water attraction shall pay the applicable permit renewal fee listed in Table HFS 172.06 to the department for each pool or water attraction that the operator has a permit to operate. If the permit renewal fee is not paid within the first 15 days of the permit renewal period, the owner of the public pool or water attraction shall pay to the department a late fee of \$75 in addition to the renewal permit fee.

(c) *Re-inspection fee.* If the department conducts a re-inspection of a public pool or water attraction under s. HFS 172.07 (1) (b) 1. and 2., the owner shall pay to the department the applicable re-inspection fee listed in Table HFS 172.06.

(d) *Fees for operating without a permit.* Any facility found to be operating without a permit shall pay to the department an amount equal to the annual permit fee, in addition to all regularly assessed fees.

**Table HFS 172.06
Fee Schedule**

Type of Facility	Permit Fee	Pre-Inspection Fee	Re-inspection Fee
Public Pool ¹	\$150	150	75
Water Attraction ²	\$175	175	75
Water Attraction, with up to 2 pool slides/waterslides	\$ 250	250	125

Waterslide	\$150	150	75
Pool Slide	\$50	50	25

¹ Including swimming, whirlpool, wading, therapy, exercise, cold soak, mobile, combination, diving pools, and experimental pools.

² Including activity pools, interactive play attractions, leisure rivers, plunge, vortex, vanishing edge, and wave pools.

(2) METHOD OF PAYMENT. If the payment for an initial or renewal permit is by check or other draft drawn upon an account containing insufficient funds, the applicant or owner shall, within 15 days after receipt of notice from the department of the insufficiency, pay applicable permit fees and penalty fees by cashier's check or other certified draft, money order, or cash.

HFS 172.07 Enforcement. (1) INSPECTIONS AND ACCESS TO THE PREMISES. (a) *Inspections.* Under s. 254.85 (1), Stats., an authorized employee or agent of the department may enter any public pool or water attraction area, including the recirculation equipment and piping area, at any reasonable time, for any of the following purposes:

1. To inspect the public pool or water attraction.
2. To determine compliance with previously written violation orders.
3. To secure samples or specimens.
4. To examine and copy relevant documents and records.
5. To obtain photographic or other evidence needed to enforce this chapter.

(b) *Re-inspections.* 1. The department may re-inspect a pool or water attraction 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 public pool or water attraction.

2. A re-inspection shall be scheduled to allow the owner a reasonably sufficient time to correct the deficiencies.

3. A re-inspection fee shall be charged for the re-inspection according to Table HFS172.06, or applicable charges as determined by an agent of the department.

4. If an additional re-inspection is required because a violation not been corrected in the scheduled time, the department shall assess the owner an additional \$50 fee as authorized under s. HFS 172.05 (1) (c), and the department may order the owner to show just cause why the permit should not be suspended or revoked under s. HFS 172.08.

Note: Agent health departments are authorized under s. 254.69 (2) (d) Stats., to establish re-inspection policies and fees that may differ from s. HFS172.07 (1) (b) 3.

(2) GENERAL ORDERS TO CORRECT VIOLATIONS. (a) If upon inspection of a public pool or water attraction, the department or agent finds that the public pool or water attraction is not designed, constructed, equipped or operated as required under ch. Comm 90 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 agent.

(b) 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 agent may issue an order under s. HFS 172.08 to suspend or revoke the permit to operate the public pool or water attraction.

(3) TEMPORARY ORDERS. (a) Whenever the department or agent has reasonable cause to believe that an immediate danger to health exists as a result of an examination under s. 254.85 (1), Stats., the department or agent may issue a temporary order under s. 254.85 (2) (a), Stats., without advance notice or hearing to do any of the following:

1. Prohibit the continued operation or method of operation of specific equipment.
2. Require the premises to cease operations and close until remedies are applied which eliminate the immediate danger to health.

(b) 1. A temporary order shall take effect upon delivery to the operator or responsible supervisor and, except as provided in par. (d), shall remain in effect for 14 days from the date of delivery. A temporary order may be re-issued for one additional 14-day period if necessary to complete any analysis or examination of samples, specimens, or other evidence.

2. 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 under subd. 1. has expired, whichever occurs first.

(c) If an 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 a temporary order issued under par. (a), shall provide written notice of the findings to the owner, operator or responsible supervisor. The notice shall include a statement that the facility has a right to request a hearing under s. HFS 172.09 within 15 days after issuance of the notice.

(d) 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.

HFS 172.08 Suspension or revocation of permit. The department may, after a hearing under s. HFS 172.09, suspend or revoke a permit for violation of this chapter or an order issued by the department. The suspension or revocation order shall take effect 15 days after the date of issuance unless a request for a hearing is requested under s. HFS 172.09 (1).

HFS 172.09 Appeals of actions by the department. (1) (a) Except as provided in sub. (2) or (3), a request for a hearing for suspension, revocation or an order given under s. HFS 172.06 (2) shall be submitted in writing to the department of administration's division of hearings and appeals within 15 days after receipt of the notice of the department's action.

(b) A request for hearing that is mailed to the division of hearings and appeals shall be considered filed with the division on the date of the postmark.

(c) A request for hearing that is hand-delivered to the division of hearings and appeals shall be considered filed on the date the request is received by the division of hearings and appeals.

(d) A request for hearing transmitted by facsimile to the division of hearings and appeals shall be considered filed on the date and time imprinted by the division's facsimile machine on the transaction report that accompanies the document. Documents received by facsimile after midnight local time shall be deemed filed on the first following business day.

Note: A request for hearing can be submitted by mail or hand-delivered to the Division of Hearings and Appeals, at 5005 University Ave., Room 201, Madison, WI 53705-5400, or faxed to the Division at (608) 264-9885.

(2) A request for hearing on a temporary order given by the department under s. HFS 172.07 (3) shall be made in writing to the department within 10 days of receipt of the order. The department shall hold a hearing within 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; or the order is not contested and the owner and the department mutually agree that no purpose would be served by a hearing. A final decision shall be issued under s. 227.47, Stats., within 10 days following the conclusion of the hearing. The decision may order any of the following to remove the danger to health:

(a) Changes to or replacement of equipment or construction.

(b) Other changes in or cessations of any operation or method of operation of the equipment or premises.

(3) If the department voids a permit under s. HFS 172.05 (3) (d), the owner shall submit written notice to the department within 5 days following a receipt of the notice provided under s. HFS 172.05 (2) that the applicable fees, late fees, and processing charges have been paid. The notice shall be accompanied by evidence that all applicable fees, late fees and processing charges have been paid and that there are no outstanding payments due to the department.

HFS 172.10 Appeals of actions by agent health departments. If an agent issues a permit under this chapter, the agent shall create enforcement and appeal procedures in under ss. 66.0417 and 254.69 (2) (g) Stats.

SUBCHAPTER II – WATER TREATMENT SYSTEMS AND WATER QUALITY

HFS 172.11 Recirculation system. (1) GENERAL. As required by s. Comm 90.11, each public pool and water attraction shall have a water recirculation system with 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.

Note: See s. Comm 90.11 for design requirements for the recirculation system.

(2) (a) SKIMMERS AND RECIRCULATION FLOW. The flow through each skimmer shall be adjusted as often as necessary to maintain a vigorous skimming action at each skimmer. The public 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 75% of the required recirculation flow shall be through the gutter and 25% through the main drain

during normal operation. For public pools with skimmers, approximately 80% of the recirculation flow shall be through skimmers and 20% through the main drain. For reverse flow pools, 100% of the required circulation shall be through the gutter or skimmer.

(b) 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.

(c) 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 public pools or water attractions with surface skimmers shall be directed as necessary to ensure that there is effective skimming in all areas.

(d) 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.

(2). SURGE TANKS. Surge tanks shall be operated within designed water levels.

(3) PUMPS. The pump manufacturer’s maintenance and operating instructions shall be followed. Recirculation pumps shall continuously achieve the designed public pool or water attraction water recirculation rate except during maintenance operations. The rate of turnover for public pools or water attractions shall be as follows:

(a) *Swimming or combination pools.* The maximum turnover time for a swimming or combination pool shall be 6 hours.

(b) *Water attractions.* The maximum turnover times for a water attraction shall be as listed in Table HFS 172.11-A.

Table HFS 172.11-A
Maximum Turnover Time
By Water Attraction Type ^a

Water Attraction Type ^b	Turnover Time (in hours) ^c
Activity	2
Interactive play attraction	0.5
Leisure river	2
Plunge	1
Runout slide	1
Vortex	1
Wave	2

^a Calculate an average turnover time for combination vessels.

^b For pool types not listed, contact the department.

^c Based on flow and pressure drop with a clean filter condition.

(c) *Wading pools.* The maximum turnover time for a wading pool shall be 2 hours.

(d) *Whirlpools.* The maximum turnover time for a whirlpool shall be 30 minutes.

(e) *Therapy and exercise pools.* The turnover times for exercise and therapy pools shall be as provided in Table HFS 172.11-B.

Table HFS 172.11-B
Maximum Turnover Time for Therapy
and Exercise Pools

Temperature in °F. (°C.)	Load (gals/person) ^a	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.

(5). FLOWMETERS, VALVES, AND GAUGES. Flowmeters, valves and gauges shall be maintained in operating condition.

(5m) 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.

(6) FILTERS. (a) *General.* The manufacturer's data plate shall be visible on all filters. Filter shells and appurtenances shall be maintained in operating condition

(b) *Sand filters.* 1. Rapid-rate sand filters shall be backwashed when the pressure differential is greater than 7 pounds per square inch or as recommended by the manufacturer, whichever is less.

2. High-rate sand filters shall be backwashed when the pressure differential is greater than 11 pounds per square inch or as recommended by the manufacturer, whichever is less.

3. Vacuum sand filters shall be backwashed when the vacuum increases 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.

4. Filter media shall be inspected annually and cleaned or replaced when necessary.

(c) *Diatomaceous earth filters*. 1. Pressure–type diatomaceous earth filters shall be backwashed when the pressure differential is greater than 25 pounds per square inch or as recommended by the manufacturer, whichever is less.

2. Vacuum–type diatomaceous earth filters shall be backwashed when the vacuum gauge reading increases to greater than 8 inches of mercury or as recommended by the manufacturer.

3. 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.

4. Diatomaceous earth wastewater separation tanks, where installed, shall be cleaned according to manufacturer instructions.

5. Positive displacement feeder suction intake shall be suspended at least 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 public pool or water attraction recirculation system.

6. *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 5% by weight. Diatomite slurry feeder head and lines shall be flushed once every 15 minutes for at least one 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.

(d) *Cartridge filters*. 1. Cartridge–type filters shall be removed and cleaned when the pressure differential is greater than 11 pounds per square inch or as recommended by the manufacturer.

2. 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.

HFS 172.12 Labeling, storing, mixing, and handling chemicals. (1) LABELING. Except for erosion feeders, which require only the name of the chemical, all chemicals used in the operation and maintenance of public pools and water attractions, and bulk storage tanks containing the chemicals, shall be conspicuously labeled with the following information:

(a) Name of the product.

(b) The manufacturer's name and address.

(c) Active ingredients.

(d) Directions for use.

(e) Hazardous ingredient warning.

(f) The U.S. environmental protection agency registration number.

(2) 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.

(3) 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.

(4) HANDLING. (a) *Smoking*. Smoking by anyone handling chemicals or by anyone within the immediate vicinity of chemicals being mixed is and shall be prohibited.

(b) *Material safety data sheet*. Material safety data sheets shall be readily available at the public pool or water attraction area for every chemical used.

HFS 172.13 Disinfectant feeders and filter aid equipment. (1) GENERAL. As required in s. Comm 90.12 (1) (b), all disinfectant feeders shall be approved by the department of commerce and installed according to the manufacturer's directions, used only with the disinfectant recommended by the manufacturer and meet all of the following requirements:

(a) 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.

(b) Feeders shall be properly vented and incorporate antisiphon safeguards to prevent disinfectant feeding in the event of the failure of recirculation equipment.

(c) Feeder pumps shall be electrically connected to the recirculation pump control circuit and have a separate disconnect switch.

(2) EQUIPMENT MAINTENANCE. All maintenance, including changing the gas tanks, shall be performed when the public pool or water attraction is closed to public use.

(3) REPAIRS. Only personnel trained and licensed in handling gas chlorine by a certifying agency such as the Federal occupational health and safety administration may repair gas chlorinators.

HFS 172.14 Disinfectant feeding and residuals. (1) GENERAL. Each public pool and water attraction in use shall be automatically and continuously disinfected by means of disinfectant and feeding equipment that is in compliance with this section and s. HFS 172.13.

(2) CHEMICAL USE REQUIREMENTS. (a) *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:

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.

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 directions.

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

(b) *Bromine*. Bromine may not be used in a waterslide, pool slide, plunge pool or wave pool unless the department's prior approval is obtained.

(c) *Gas chlorination*. 1. Where chlorine gas is used, all equipment operating staff shall be trained in the handling and use of chlorine gas, including the use of the self-contained breathing apparatus, and shall show evidence of that training in the use and maintenance of chlorinating equipment.

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 facility shall implement a written respiratory protection plan in compliance with 29 CFR 1910.134, that includes procedures for the selection and use of respirators and training users.

Note: Section 29 CFR 1910.134 may be consulted in the offices of the Department's Division of Public Health, the Revisor of Statutes Bureau, or as part of the U.S. Code of Federal Regulations at any public library or university or college library.

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

6. 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.

7. Light switches and exhaust switches shall be located outside of the chlorine gas storage room.

8. 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 that they are empty. Cylinder valves shall be closed.

Note: See s. Comm 90.12 (2) for design requirements for gas chlorination equipment.

(3) FEEDING. Disinfectant and filter aid feeding shall be conducted as follows, as applicable:

(a) *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 2– tank system shall be used. One tank shall be used for mixing the solution and settling the precipitate. The clear liquid shall be decanted or siphoned into the second tank for distribution.

(b) *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.

(c) *Dry feeders.* Feeders used for feeding dry chemicals into water circulation piping, a surge tank, or vacuum filter shall be maintained for proper operation.

(4) CHEMICAL CONCENTRATIONS AND RESIDUALS. (a) *Minimum disinfectant residuals.* Except as provided in par. (b), feeding shall result in the minimum disinfectant residuals in Table HFS 172.14.

TABLE HFS 172.14
Minimum Disinfectant Residuals

<u>Swimming and Activity Pools</u>	<u>Minimum Free Chlorine Residual</u>	<u>Total Bromine</u>
Swimming and Activity Pool	1.0 ppm	3.0 ppm
Swimming and Activity Pool With Stabilizer	1.5 ppm	N/A
<u>Wading Pools</u>		
Wading Pool	2.0 ppm	4.0 ppm
Wading Pool With Stabilizer	3.0 ppm	N/A
<u>Whirlpool, Exercise, Therapy Pools</u>		
Whirlpool	3.0 ppm	7.0 ppm
Whirlpool With Stabilizer	4.0 ppm	N/A
<u>Water Attractions Other Than Those Specified</u>		
Water Attraction Other Than Those Specified	1.0 ppm	3.0 ppm
Water Attraction Other Than Those Specified With Stabilizer	1.5 ppm	N/A

Plunge Pools and Wave Pools		
Plunge and Wave Pool	2.0 ppm	5.0ppm
Plunge/ Wave Pool With Stabilizer	3.0 ppm	N/A
<u>Interactive Play Attractions</u>		
Interactive Play Attraction	2.0 ppm	5.0 ppm
Interactive Play Attraction With Stabilizer	3.0 ppm	7.0 ppm
<u>Waterslides and Pool Slides</u>		
Waterslides and Pool Slides	2.0 ppm	5.0 ppm
Waterslides With Stabilizer	3.0 ppm	N/A

(b) *Cyanurates*. The water cyanuric acid concentration may not exceed 30 ppm.

(c) *pH control*. The water's pH shall be maintained within a range of 7.2 through 7.8.

(d) *Alkalinity*. The total alkalinity of pool water shall be maintained between 80 and 180 ppm as calcium carbonate unless it can be shown that another level of total alkalinity produces chemically balanced water based on calculations approved by the department.

(e) *Combined chlorine*. When use of a department-approved test kit discloses the presence of combined chlorine in excess of 0.5 ppm in outdoor or 0.8 ppm in an indoor public pool or water attraction water, the water shall be treated to breakpoint chlorination using a chlorine product or a nonchlorinated oxidizer such as potassium peroxymonosulfate. Isocyanurates may not be used for superoxidation. The public pool or water attraction shall be closed to the public during periods of breakpoint chlorination when a chlorine product is used.

(5) **ELECTRONIC MONITORING DEVICES.** (a) When oxidation potential controllers are used the water potential shall be kept between 650-850 mV.

(b) When a waterslide plunge pool or a wave pool is equipped with approved and properly functioning electronic monitoring devices to control the chlorine residual and pH level, the free available chlorine residual may be a minimum of 1.0 ppm.

HFS 172.15 Alternative disinfection systems. Any one of the following supplemental systems may be added to a public pool or water attraction if an automated disinfection system is in place and on line to maintain the disinfectant residuals under s. Table HFS 172.14:

(1) **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 Comm 90.12 (1) (c).

(2) **OZONE GENERATORS.** (a) Ozone generators shall provide a concentration of ozone in the return line to the public or water attraction pool not to exceed 0.1 mg/L.

(b) 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.

(c) Off-gassing of ozone shall not result in ozone levels in the equipment room, public pool or water attraction area exceeding 0.1 ppm.

(3) ULTRA VIOLET LIGHT. Ultraviolet light units shall be NSF tested and approved for use in water disinfection systems and installed pursuant to NSF requirements.

HFS 172.16 Water quality. (1) GENERAL REQUIREMENT. Public pool or water attraction 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.

(2) WATER CLARITY. The water shall contain 0.5 or less Nephelometric Turbidity Units and the main drain shall be readily visible from the public pool or water attraction deck.

(3) WATER SAMPLING. (a) *Sample collection and analysis.* The department or its agent may collect samples of public pool or water attraction water for microbiological analysis in evaluating water quality. The analysis of water samples shall be performed by a laboratory accredited by the Wisconsin department of agriculture, trade, and consumer protection, and 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.

Note: Primary protection from the risk of microbiological disease acquired from public pools or water attractions is achieved through monitoring and maintaining pH levels and disinfection residuals in the recommended ranges. A list of accredited laboratories may be obtained by calling the Wisconsin Department of Agriculture, Trade, and Consumer Protection at 608-224-4712 or by email at www.datcp.state.wi.us. The 21st edition of *Standard Methods for the Examination of Water and Wastewater* may be consulted at the offices of the Revisor of Statutes office and may be purchased from the American Public Health Association, 800 I Street, N.W., Washington, D.C. 20001-3710.

(b) *Bacteriological standards.* 1. Water quality should be maintained to meet the following standards are met. When bacteriological analysis of total coliforms is performed, no coliforms are present in a 100 mL sample.

2. When bacteriological analysis is performed for the heterotrophic plate count, the total count should not exceed 200 colonies in a 1 mL sample.

3. When bacteriological analysis is performed for staphylococci, the count should not exceed 50 organisms in a 100 mL sample.

(4) ALGAE CONTROL. An algaecide may be used in a public pool or water attraction if the algaecide complies with s. HFS 172.14 (2) and is used according to the manufacturer's directions for potable water.

HFS 172.17 Water test kits. (1) A test kit approved by the department shall be maintained for testing the public pool or water attraction water pH; the disinfectant residual; the combined chlorine level, when chlorine is used; the total alkalinity; and the cyanuric acid concentration, when used. The disinfectant testing reagent shall be diethyl-p-phenylene diamine (DPD) in powder or liquid form.

(2) Test kit reagents shall be stored in the original labeled container and shall be replaced as recommended by the manufacturer.

(3) A test kit using the titrimetric method 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 s. HFS 172.14 (4). The test equipment shall provide for direct measurement of free and combined chlorine from 0 to 10 ppm in increments of 0.2 ppm. If bromine is used, the testing equipment shall provide for direct measurement of total bromine from 0 to 20 ppm in increments of 0.2 ppm.

HFS 172.18 Water testing frequency. (1) PUBLIC POOLS AND WATER ATTRACTIONS. Water shall be tested daily before the pool or attraction is open to the public and at least one other time during the day's peak patron load for pH and disinfectant residual, at least twice a week for the combined chlorine level when chlorine is used, and at least once a week for total alkalinity and cyanuric acid concentration when cyanuric acid is used in the water basin.

(2) WHIRLPOOLS, THERAPY, EXERCISE POOLS. Except as specified in s. HFS 172.17 (c), water in a whirlpool, therapy pool, or exercise pool shall be tested for pH and disinfectant residual at least 4 times daily. For at least 2 of these times, the testing shall be done when the pool is in use. Water shall be tested at least once daily for combined chlorine, when chlorine is used, and at least weekly for total alkalinity.

(3) ELECTRONIC MONITORING DEVICE. Water in a public pool or water attraction that has a properly functioning electronic monitoring device installed to control pH and disinfectant residual shall be manually tested at least once a day for pH and disinfectant residual with an approved test kit as specified in s. HFS 172.17. The operator shall continually monitor the device to determine if it meets operating criteria specified in s. HFS 172.14 (5).

HFS 172.19 Water supply and temperature. (1) WATER SUPPLY PROTECTION. A minimum air-gap of 2 pipe diameters or 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.

(2) WATER SOURCE. The water supplied to a public pool or water attraction shall be from a source approved by the department of natural resources under ch. NR 108, 811 or 812.

(3) WATER LEVEL. Proper water level shall be maintained at all times when the public pool or water attraction is open. Water levels in public pools and water attractions with skimmers shall be maintained at a level such that the weir is half submerged. Public pools and water attraction designs with gutters shall have a continuous water supply over the gutter to provide effective skimming.

(4) WATER TEMPERATURE. (a) An accurate thermometer shall be located in the public pool water return line and shall be accessible for observation by the operator.

(b) Except in par. (d), the water temperature of an indoor public pool or water attraction shall be between 72°F. (25°C.) and 95°F. (35°C.). The minimum water temperature for an outdoor public pool or water attraction shall be 65°F. (18°C.).

(c) The water temperature in whirlpools may not exceed 104°F. (40°C.).

(d) Cold soak pools may be operated at a lower temperature than specified under par.(b). The pool shall post the water temperature on signage as required under s. HFS 172.29 (5).

SUBCHAPTER III – STAFFING PUBLIC POOLS AND WATER ATTRACTIONS

HFS 172.20 Operator. (1) PUBLIC POOLS AND WATER ATTRACTIONS. (a) *General Requirement.* Each public pool and water attraction shall be under the supervision of at least one operator, except that contiguous multiple public pools and water attractions operated under the same owner may be supervised by one operator.

(b) *Operator Responsibilities.* Each operator shall be responsible for public pool or water attraction operation and maintenance including equipment shutdown, backwashing, daily maintenance and vacuuming, and maintenance of water quality pursuant to s. HFS 172.11.

(2) SPECIAL REQUIREMENTS FOR WATER ATTRACTIONS .(a) *Certified Pool Operator required.* 1. Each water attraction and water attraction complex shall be staffed by at least one certified operator by January 1, 2008. An owner of a water attraction or water attraction complex that first applies for a permit under s. HFS 172.05 after January 1, 2008 shall be staffed by a certified pool operator within 90 days of receiving a permit to operate the water attraction or water attraction complex.

2. The owner of a water attraction or water attraction complex shall replace a certified pool operator within 90 days after a certified operator's departure.

(b) *Documentation of certification.* Current certifications of certified operator staff shall be maintained at the water attraction and water attraction complex..

HFS 172.21 Responsible supervisor. (1) Each public pool and water attraction shall be under the supervision of at least one responsible supervisor at all times. 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 public pool or water attraction is open for use. The responsible supervisor shall maintain order, ensure that safety equipment is in place, and enforce public pool and water attraction use regulations governing safety, sanitation and water testing.

(2) The responsible supervisor shall have the authority to close the public pool or water attraction as necessary under s. HFS 172.30.

HFS 172.22 Lifeguards and Attendants. (1) LIFEGUARD AND ATTENDANT STAFFING PLANS. (a) The operator of a public pool, including a whirlpool over 4 feet and a public pool with a visual obstruction, and the certified operator of a water attraction or water attraction complex shall submit a written, proposed lifeguard and attendant staffing plan to the department for approval. The operator shall keep a copy of the plan at the public pool and the certified pool operator shall keep a copy of the plan at the water attraction and water attraction complex. The plan shall include all of the following:

1. The square footage of the public pool, water attraction, and water attraction complex as applicable.

2. The maximum and average patron load.

3. The hours of operation.

4. The location of each lifeguard station and each first aid station.

5. The number of lifeguards or attendants on duty pursuant to HFS 172.23.

6. 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.

7. A method of communication when 2 or more attendants or lifeguards are required for a water attraction.

(c) A public pool, water attraction, or water attraction complex that is not required under s. HFS 172.23 to have a lifeguard shall post a sign that states, in letters that are a minimum 4 inches high, "No Lifeguard on Duty".

Note: To submit a lifeguard and attendant staffing plan to the department or to determine which agent to submit a lifeguard and attendant staffing plan to, write or phone: Bureau of Environmental and Occupational Health, P.O. Box 2659, Madison, Wisconsin 53701-2659 (608-266-2835).

(d) Plan required under par. (a) for a whirlpool that is located in a water attraction complex, shall specify that at least one 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 4 inch letters: Non-guarded area.

(2) QUALIFICATIONS. (a) Each life guarding certification, first aid certification, and CPR certification held by lifeguard staff shall be maintained at the public pool, water attraction, or water attraction complex and be made available for inspection by the department.

(b) At least one of the lifeguards required under s. HFS 172.23 (1) to supervise a water attraction that has a surface area of 2,000 square feet or more and a water depth greater than 4 feet shall have all of the following additional certifications:

1. American Red Cross Water Park Lifeguard certificate.

2. National Aquatic Safety Company Lifeguard Training certificate

3. National Pool and Water park Lifeguard Training certificate

4. Other water park certification approved by the department.

(c) Attendants may staff water attractions, waterslides, or pool slides to assist patrons. Attendants may not be used in place of lifeguards.

(3) LIFEGUARD IDENTIFICATION AND ASSIGNMENT. (a) 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 at all times when on duty.

(b) A lifeguard who is assigned to supervise a public pool or water attraction may not be assigned duties that may distract the lifeguard's attention from observing a patron in the public pool

or water attraction area or that may hinder the lifeguard’s ability to provide immediate assistance to a patron.

HFS 172.23 Lifeguard and attendant placement and staffing requirements. (1)

GENERAL. (a) 1. Each public pool or water attraction having a surface area of 2,000 square feet or more shall be staffed pursuant to Table HFS 172.23-A and Table HFS 172.23-B when the public pool or water attraction is in use. If the requirements in Table HFS 172.23-A and Table HFS 172.32-B conflict, the public pool or water attraction shall comply with the strictest requirements of Table HFS 172.23-A or Table HFS 172.23-B.

2. An operator may close a portion of a public pool or water attraction to patrons in order to meet the square footage limits in Table HFS 172.23-A for lifeguard staffing, except that lifeguard staffing requirements for a pool of 2,000 to 4,999 square feet shall be maintained..

3. When the patron load of a public pool or water attraction exceeds 336 patrons, one lifeguard shall be provided for each additional 100 patrons or fraction thereof.

(b) A public pool or water attraction type that is not addressed in Table HFS 172.23-A or HFS 172.23-B shall request evaluation by the department and follow the requirements specified by the department following the evaluation.

(c) An additional lifeguard shall be provided for every 2 slide flumes installed at a public pool other than a separate waterslide plunge pool.

(d) An attendant responsible for enforcing waterslide usage rules shall be stationed at the entrance to the waterslide flume.

(2) Each public pool, water attraction, or waterslide that is not required to have a lifeguard shall post a sign with letters at least 4 inches high stating: “Warning: No Lifeguard on Duty.”

Table HFS 172.23-A
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 of 5,000 to 9,999 sq. ft.	Lifeguards for a Pool or Water Attraction 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 336 patrons, one lifeguard shall be provided for each additional 100 patrons or fraction thereof.

Table HFS 172.23-B
 Required Number of Lifeguards and Attendants
 Based on Public Pool or Water Attraction Type

Public Pool or Water Attraction Type	Lifeguard and Attendant Staffing Requirements
Activity Pools	At least one lifeguard is required if the pool contains one of the following: <ol style="list-style-type: none"> 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 Pools	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 HFS 172.23-A.
Public 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.
Public Pools with Diving Boards or Platforms	At least one lifeguard for every 2 diving boards or platforms in the same pool.
Pools with Slides	<ol style="list-style-type: none"> 1. Children's Slide: No attendant is required. 2. Poolslide: Greater than 4 ft. but less than 6 ft., which drops into water greater than 4 ft: At least one lifeguard. 3. Poolslide: Less than 6 ft., with an obstructed view of slide terminus at 43 inches at entry point: At least one lifeguard. 4. Drop slide: < 6 ft: At least one lifeguard 5. Run-out slide: <ul style="list-style-type: none"> • > 6 ft. clear view of the terminus end: At least one attendant on top platform. • > 6 ft. obstructed view of the terminus end: At least one attendant on top and bottom of run-out. • < 6 ft., clear view of terminus end: No attendant or lifeguard required 6. Waterslide: <ul style="list-style-type: none"> • > 6 ft.: Attendant on top of the slide, lifeguard on bottom and means of 2-way communication between attendants and lifeguards. • < 6 ft. 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 Comm 90.18 (3) and 90.30 (3).
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 4 inch letters: Non-guarded area.
Therapy Pools	At least one attendant who has current CPR certification is required for a therapy.
Interactive Play Attraction (Splash Pads)	At least one attendant is required on the premises of a water attraction complex and shall provide periodic supervision of the water attraction as specified in the staffing plan.

HFS 172.24 Instructional programs. A public pool or water attraction 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 requirements of this subsection is met. A public pool or water attraction that is open to the public during an instructional program session shall be supervised by a lifeguard or attendant pursuant to s. HFS 172.23.

SUBCHAPTER IV - OPERATION AND MANAGEMENT

HFS 172.25 Permissible Patron load. (1) **WATER ATTRACTIONS.** The maximum number of patrons permitted to be in an individual water attraction at any one time shall be calculated on the basis of allowing one patron for every 15 square feet of water surface area. The splash zone of any water attraction shall be included in the calculation of the water surface.

(2) **PUBLIC POOLS.** (a) *Swimming pools and combination pools.* The maximum number of patrons permitted to be in the water of a swimming or combination pool at any one time shall be computed on the basis of allowing one patron for every 15 square feet of the shallow portion of the pool and one patron for every 25 square feet of the deep portion of the pool. Three hundred square feet of pool water surface around each diving board and platform may be excluded in computing the permissible patron load. An additional 10 patrons for each diving board shall be included in the computation.

(b) *Whirlpools.* The maximum number of patrons permitted to be in the water of a whirlpool at any one time shall be computed on the basis of allowing one patron for every 10 square feet of whirlpool surface area.

(c) *Wading pools.* The maximum number of patrons permitted to be in the water of a wading pool at any one time shall be computed on the basis of allowing one patron for every 15 square feet of wading pool surface area.

(d) *Therapy and exercise pools.* The maximum number of patrons permitted to be in the water of a therapy or exercise pool at any one time shall be computed on the basis of allowing one patron every 15 square feet of the shallow portion of the pool and one patron for every 25 square feet of the deep portion of the pool.

HFS 172.26 Rescue equipment. (1) REQUIRED EQUIPMENT. (a) All rescue equipment shall be maintained in good repair. Rescue equipment shall be mounted in a conspicuous place and shall be readily accessible.

(b) For each basin of water over 4 feet in length and over 2 feet deep, a shepherd's crook-type pole shall be provided. In addition, for each lifeguard chair, or for a pool 30 feet or more in width that does not have lifeguard chairs, at least one of the following shall be provided:

1. A ring buoy having a minimum outside diameter of 20 inches. Each ring buoy shall be attached to a 1/4 inch rope having a length not less than 1 1/2 times the maximum width of the pool or 50 feet, whichever is less.

2. A rescue tube.

(c) The safety rope required in s. Comm 90.08 (4) 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.

(d) A spine board with straps and head immobilizer in good condition shall be available at a public pool or water attraction where a lifeguard is required.

(2) TELEPHONE. For outdoor public pools or water attractions, a working telephone shall be available in the pool or water attraction area. For indoor public pools and water attractions, 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.

Note: A request for an alternative location for a telephone or another system of communication that provides access to emergency service during hours of pool or water attraction operation may be made under s. HFS 172.02 (2).

HFS 172.27 First aid supplies. (1) A Department approved first aid kit and 2 durable blankets in good condition shall be available at each public pool and water attraction area. The first aid kit shall contain 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.

(2) Biohazard safety equipment, including a blood and biohazard disposal kit shall be located at the first aid station or another location accepted by the department on the premises.

HFS 172.28 Food and drink. Food or drink service facilities shall not be located within 12 feet of the water's edge.

HFS 172.29 Posting pool and water attraction rules. (1) GENERAL. (a) The operator shall post pool and water attraction use rules governing safety and sanitation and shall enforce those rules.

(b) A legible sign showing public pool and water attraction use rules shall be posted in a conspicuous place or places in the pool area. Public pool rules may not be eliminated, modified or added to in connection with water attractions, therapy pools or other specialized pools defined in s. Comm 90 or this chapter without approval by the department. The sign shall include all of the following rules in at least 1 inch letters:

1. Do not enter the pool if you have a communicable disease or an open cut.
2. Do not bring food, drink, gum or tobacco into the pool.
3. Shower before entering the pool or water attraction and after use of toilet facilities.
4. Do not run or engage in rough play in the pool or water attraction area.
5. Do not bring animals into the pool or water attraction area.
6. Diaper changing on the pool or water attraction deck is prohibited.
7. Glass and shatterable items are prohibited in the pool or water attraction area.

(c) A public pool that is 200 square feet in area or greater that does not have an approved diving well configuration shall have "NO DIVING" in at least 4-inch high letters included with the rules listed under par. (b).

(d) A sign showing the maximum patron load shall be conspicuously displayed in each public pool or water attraction area. The maximum patron load as stated in s. Comm 90.07 or 90.19 (4) may not be exceeded.

(e) If non-toilet-trained children are permitted in the public pool or water attraction, the operator shall require the children to be diapered with swim diapers.

(2) **POOL SLIDES AND WATERSLIDES.** For the plunge section of a public pool or water attraction, the public pool use rules signage required under sub. (1) shall also be conspicuously posted at the entrance to the slide tower and include all of the following rules.

- (a) Do not use the slide while under the influence of alcohol or drugs.
- (b) Follow the instructions of the attendant.
- (c) No standing, kneeling, rotating or stopping in the flume.
- (d) Keep your hands inside the flume.
- (e) Leave the plunge area immediately.
- (f) **WARNING:** Water depth is ____ feet.

(3) **WHIRLPOOLS.** For whirlpools, the signage required under sub. (1) 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 1 inch letters:

- (a) Elderly persons and persons suffering from heart disease, diabetes, or high or low blood pressure should not enter the whirlpool.
- (b) Children who are unsupervised may not use the whirlpool.
- (c) Persons under the influence of alcohol or drugs may not use the whirlpool.
- (d) Pregnant women should consult their physician regarding whirlpool usage.
- (e) Lengthy exposure may be hazardous to your health and may result in nausea, dizziness or fainting.
- (f) Children age 5 and under are not permitted.

(4) **VORTEX POOL AND CURRENT POOLS.** For vortex pool and current pools, the signage required in sub. (1) shall also be conspicuously posted in the vortex pool and current pool area and include "Artificial Current; Strong Swimmers Only." in 4 inch or larger letters.

(5) **COLD SOAK POOLS.** For cold soak pools, the signage required under sub. (1) shall also be conspicuously posted in the cold soak area and include a sign that states the water temperature in Fahrenheit in at least 4 inch high letters.

(6) **INTERACTIVE PLAY ATTRACTIONS.** Signage conspicuously posted on the periphery of the water attraction shall clearly state all of the following in at least 1 inch letters:

- (a) Do not enter the water attraction if you have a communicable disease or an open cut.
- (b) Do not bring food, drink, gum, tobacco, glass or street shoes into the water attraction.
- (c) Do not bring animals into the water attraction area.
- (d) Recreational wheel-based methods of transportation are prohibited.

(e) Diaper changing is permitted in designated areas only, and not allowed on splash area.

HFS 172.30 Public pool and water attraction closing criteria. Any of the following conditions or situations shall constitute sufficient reason for the operator or responsible supervisor to close a public pool or water attraction or for the department or its agent under s. HFS 172.07 (3) to order that the public pool or water attraction be closed:

(1) The presence of a hazardous substance or object in the public pool or water attraction or the existence of any condition creating an immediate danger to health or safety, including fecal accident events.

(2) Failure to comply with the water quality requirements in s. HFS 172.16.

(3) Failure to comply with the disinfectant residual levels established in s. HFS 172.14. and pH values that are less than 6.8 or equal to or greater than 8.0.

(4) A non-operational circulation pump, filter, or disinfectant feeder.

(5) Failure to comply with the number of lifeguards or attendants required in s. HFS 172.23.

(6) Absence or non availability of a responsible supervisor.

HFS 172.31 Fecal accident response. (1) In responding to a fecal accident, the operator shall consider guidelines for fecal accidents in swimming pools published by the Federal centers for disease control and prevention.

Note: 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>.

(2) The operator shall document each fecal contamination as follows:

(a) 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 public pool or water attraction to the public.

(b) Whether the stool is formed or loose.

(c) The procedures followed in responding to the fecal contamination.

(d) The number of patrons in the public pool and the length of time between the occurrence, detection, and resolution of the incident.

HFS 172.32 Monthly reports and records. (1) OPERATING REPORTS. The public pool or water attraction operator or responsible supervisor shall complete monthly reports of daily public pool or water attraction operation on forms provided by the department or agent. The monthly reports shall be submitted to the appropriate regional office of the department or to the agent as appropriate no later than the tenth day of the following month.

Note: To obtain copies of the Department's form for monthly reporting of daily public pool operations or to determine which agent to contact to obtain copies, write or phone: Bureau of Environmental and Occupational Health, P.O. Box 2659, Madison, Wisconsin 53701-2659, 608-266-2835.

(2) DEATH, INJURY OR ILLNESS REPORTS. 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.

Note: Report deaths, injuries or illnesses to the Bureau of Environmental and Occupational Health by calling 608-266-2835 or fax to 608-267-3241.

(3) FILES. (a) The operator shall maintain on the premises a file containing a copy of each of the following:

1. The monthly operating reports required under sub. (1).
2. Each laboratory bacteriological report.
3. Each fecal accident report made under s. HFS 172.31.
4. In addition to the reports listed under subds. 1., 2., and 3. any other report submitted to the department or agent for the preceding 2 year period.
5. A copy of the most current version of ch. HFS 172.
6. Public pool and water attraction construction plans.
7. 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 public pool or water attraction operation and maintenance.
8. Copy of the most recent Federal centers for disease control recommendations for fecal accidents or other plan in response to fecal accidents.
9. Daily inspections and operational tests as specified in s. HFS 172.37.

(b) All records shall be kept at least 7 years, except monthly reports and fecal accident reports which shall be kept for 2 years.

(c) All of the documents under par. (a) shall be accessible to the operator and the department or agent.

HFS 172.33 Facility maintenance, repair and sanitation. (1) PUBLIC POOL AND WATER ATTRACTION AREA. (a) *General.* Each public pool and water attraction 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 public pool and water attraction interior shall be refinished as necessary to maintain it in a cleanable condition. The public pool and water area shall be maintained in a clean and sanitary condition. Glass and shatterable plastic items shall be prohibited in the pool or water attraction area.

(b) *Deck maintenance and cleaning.* Public pool and water attraction areas and appurtenances, including safety pads, shall be maintained in good repair and shall be rinsed daily to prevent microbial growth. Indoor public pool decks shall be disinfected at least weekly. Depth

markings along the edge of the public pool shall be maintained to be clearly visible and readable. The deck shall be kept unobstructed except for easily portable furniture and equipment.

(c) *Walls, ceilings and floors.* The walls, ceilings and floors in the public pool and water attraction area shall be maintained in a clean and sanitary condition.

(d) *Hosing.* Hosing shall be provided in adequate lengths to flush the entire public pool or water attraction deck. All hose bibbs shall be protected against backsiphonage by the proper installation of an approved backflow prevention device as required under s. Comm 90.13 (6).

(e) *Equipment.* Public pool and water attraction equipment, including equipment on the deck, shall be properly located and installed and maintained and repaired as necessary.

(f) *Spectator areas.* The spectator area shall be maintained in a clean condition. Spectator areas with tables, chairs and other obstructions shall not block the deck.

(g) *Drinking fountain.* Each drinking fountain required under ss. Comm 90.09 (3) and 90.16 shall be maintained in clean and sanitary condition.

(2) **SHOWER, TOILET AND DRESSING FACILITIES.** (a) 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.

Note: See s. Comm 90.16 for additional information.

(b) Showers shall be maintained in an operable condition and each shower shall provide 3 to 5 gallons of water per minute.

(c) Toilet room fixtures and diaper changing stations shall be kept clean and maintained in good repair.

(d) Lockers and furniture shall be cleaned as needed and maintained in good repair.

(e) 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.

(f) Individual towels in dispensers or hot air dryers shall be provided at hand washing sinks.

(g) A continuous supply of toilet tissue shall be provided in permanently installed dispensing devices.

(h) 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.

(i) Hose bibbs shall be conveniently located to adequately rinse and sanitize floors in shower, dressing, and toilet facilities.

(3) **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.

(4) WATER HEATERS, VENTILATION, ELECTRICAL. (a) Water heaters and heat exchangers shall be maintained in operating condition.

(b) Heating, ventilation, and exhaust equipment shall be maintained and operated to provide air movement as required by ss. Comm 61 to 65 to prevent any excessive condensation problems in indoor enclosures.

(c) Electrical equipment and lighting shall be maintained in good repair and in operating condition.

Note: Refer to ss. Comm 90.14 and 90.17 for department of commerce installation requirements.

SUBCHAPTER V – PUBLIC POOL, SLIDE, AND WATER ATTRACTION CONSTRUCTION AND DESIGN

HFS 172.34 Public pool design. (1) Any object or material not specifically approved under this chapter or ch. Comm 90 that may cause hazardous conditions or interfere with efficient operation of a public pool, slide, waterslide or water attraction is not permitted in the public pool or water attraction area.

(2) All gates and doors into the public pool or water attraction area shall be maintained and checked for proper operation. Gates and doors shall be locked when the public pool or water attraction is not in use.

(3) All outdoor public pool enclosures shall be at least 5 feet high. All public pool or water attraction areas shall be enclosed and have self closing and latching gates.

(4) During closed hours, a sign shall be conspicuously posted stating that the public pool, slide, or water attraction and deck is closed.

Note: See s. Comm 90.10 for additional rules relating to the outdoor public pool enclosure.

(5) Landscaping planters, pots or other plant containers may not be placed on public pool and water attraction decks. Landscaping features such as bark, gravel, shrubs, or flowers may be located within the public pool enclosure but shall be separated from the public pool by an additional 5 feet of impervious area or maintained lawn or the landscaping features must be installed in a 4inch depression and the depressed area must be surrounded by a 42-inch high barrier. Landscaped areas within a public pool or water attraction 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 public pool enclosure unless the sand area is made inaccessible from the public pool area by the location of a security-type barrier that is at least 42 inches high. There may be controlled entrances to the public pool area if the entrances are controlled and provided with showers.

HFS 172.35 Waterslide and pool slide design. (1) All slides shall be designed and installed as required in s. Comm 90.30.

(2) Slide lubrication shall be in accordance with s. Comm 90.30 (4). Run-out slide flume lubrication systems shall comply with the requirements in s. Comm 90.206 (3) (b) 2. and 3.

(3) The portion of the public pool or water attraction water surface that is used as a plunge area for a pool slide or waterslide shall be continuously separated from other areas of the public pool in a manner approved by the department as long as the slide is in use.

HFS 172.36 Water attraction design. (1) GENERAL. (a) 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.

(b) Interior and exterior parts of all water attractions that 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.

(c) 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.

(d) 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.

(e) Guards removed for any purpose shall be replaced before normal operation of the water attraction is resumed.

(f) 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.

(g) 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.

(h) Fences shall be constructed to meet all of the following requirements:

1. Fences shall be at least 42 inches above the surface on which the spectators or patrons stand.

2. Fences shall be constructed to reject a 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 or patrons.

4. Where used, gates shall open away from the water attraction unless equipped with a positive latching device.

(i) 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.

(j) Fences and gates shall be constructed to inhibit spectator contact with the water attraction and patron contact with fences or gates.

Note: 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.

(k) Loading and unloading areas which are an integral part of the water attraction shall be separated from moving parts by barriers or guardrails.

(L) 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.

(m) 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 200 pounds.

(n) Where a spectator area is provided, it shall be separated by a railing or other barrier from the water area.

(2) INTERACTIVE PLAY ATTRACTIONS. All interactive play attractions shall comply with the following requirements:

(a) If access to the interactive play attraction is not restricted by an enclosure, an attendant shall be present.

(b) Water drains shall be in good working condition.

(c) Trees and vegetation are prohibited in the water attraction area.

(d) Water spray features shall be activated for 30 minutes before the daily opening of the water attraction.

Note: A ring buoy and shepherd's crook are not required to be present for an interactive play attraction.

HFS 172.37 Maintenance, repair, and modifications of water attractions. (1)
GENERAL. (a) Water attractions shall be maintained, repaired and modified in accordance with recognized safe practice.

(b) Improperly maintained, repaired or modified water attractions shall not be opened to the public.

(c) 1. 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.

2. All work shall be performed by a competent qualified mechanic capable of understanding the function of the parts and the proper installation.

3. Non-graded bolts, nails, fasteners and wire shall be used only for their intended purposes.

4. Rotted, split or otherwise structurally unsound material shall be replaced.

(2) INSPECTIONS AND TESTING. (a) *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 s. HFS 172.32 (3).

(b) *Daily inspection and operational testing.* Water attractions and all 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.

(c) *Waterslide inspection.* Every five 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 s. HFS 172.32.

SECTION 2. EFFECTIVE DATE. The rules contained in this order shall take effect on the first day of the month following publication in the Wisconsin administrative register, as provided in s. 227.22 (2), Stats.

Wisconsin Department of Health
and Family Services

Dated:

By: _____
Helene Nelson,
Secretary

SEAL: