

**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, Carrico Aquatic Resources, 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 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 supervise their pools and either hire already certified lifeguards or train existing staff. DHFS estimates 20 hotels per year would fall into this category.

Costs to agencies: There is no additional cost to state or local agencies related to meeting the lifeguard requirements.

DHFS will absorb minimal costs associated with training inspectors to properly inspect water slides. Each inspection of pool slides should take no more than 20 to 30 additional minutes while the inspector is already present.

- Certified Pool Operator (CPO) Requirements: Wisconsin has a large pool of certified pool operators, and regularly adds more. From April 2001 to April 2006, 2041 persons graduated from Wisconsin Certified Pool Operator courses. Thus, the industry should feel little impact from these new rule provisions, as most facilities that need a CPO either already have a CPO or can choose from the pool of qualified individuals.
- Inspection, Pre-inspection and Re-inspection fees: The addition of pre-inspection and re-inspection fees, as well as higher fees associated with waterslide inspections may have an economic impact related to this rule. A pre-inspection is an examination of the facility prior to the facility's opening to ensure compliance with applicable statutes and administrative rules. Re-inspections occur when a facility presents a potential hazard to the general public if conditions are not corrected, and therefore an additional inspection is necessary.
- Water slide inspection fees: DHFS follows a system of rating, inspecting, and charging establishments according to the relative risk related to and the complexity of the operation. Accordingly, a revised fee structure has been created with the following changes:
 - Traditional pool or hot tub no change
 - Water attraction without slides plus \$25 annually
 - Water attraction with 1 or 2 slides plus \$100 annually
 - Additional water slides plus \$150 annually
 - Additional pool slides (smaller) plus \$50 annually

DHFS estimates there are 400 water attractions without slides, 200 with 1 or 2 slides, an additional 20 water slides, and an additional 20 pool slides. Increased revenue to DHFS under the new rule is estimated to be:

400 * \$25 = \$10,000
200 * \$100 = \$20,000
20 * \$150 = \$3,000
20 * \$50 = \$1,000
Total revenue increase = \$34,000

- Operating without a license: A fee equal to the annual licensing fee has been added to the rule for facilities found to be purposefully operating without a license. This fee will not apply to someone who is merely late in renewing, or who inadvertently misplaces the fee notice.

Benefits of the code revisions:

Pool operators understand the need to keep the public safe, and the goal of keeping their operations open. These administrative rule revisions address both of those issues.

- Serious but flexible lifeguard plans will help pool operators keep their operations safe.
- 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 Applicability
- 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 Applicability. (1) This chapter applies to the operation of public pools and water attractions.

(a) A pool or water attraction is a public pool or water attraction if it is 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 if it serves or is installed for use by 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, such as an apartment complex, condominium complex or housing complex having a homeowners' association, a school, a religious, charitable or youth organization, or an educational or rehabilitative facility.

(b) A pool or water attraction is not a public pool or water attraction if it serves fewer than 3 individual residences, unless it is used on a regular basis by persons other than the residents.

(2) Unless the context clearly indicates otherwise, references to "pool" in these rules means a public pool or water attraction.

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, if the department is provided with satisfactory proof that the alternative will achieve results which are closely equivalent to the results of literal application of the requirement.

(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 centimeters) 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, 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 to achieve the destruction of chloramines.
- (7g) "Certified water attraction 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 meters) 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 pool that uses cold water for therapy.
- (10) "Combination pool" means a pool that is used for swimming and diving.
- (11) "Current pool" means a pool that creates a current for the purpose of exercise.
- (12) "Deck" means the approved, unobstructed walking surface immediately adjacent to a pool.
- (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 pool used exclusively for diving.
- (16) "Drop slide" means a slide where the terminus is located 20 inches (50.8 centimeters) or more above the water level.
- (17) "Engineer" means a registered professional engineer licensed in Wisconsin.
- (18) "Entry access point" means the area in which a patron enters a water attraction.

(19) "Erosion feeder" means a chemical feed device in which powder, tablets, briquettes, or sticks are placed in a container and through which a water stream is passed, eroding and dissolving the chemical.

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

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 water 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 pool.

(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 all of the following certifications:

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

1. A current American Red Cross Lifeguard Training certificate.
2. A Young Men's Christian Association Lifeguarding certificate.
3. An International 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 or more of the following:

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

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

1. A certificate from the American Red Cross “CPR for the Professional Rescuer” course.
2. A certificate from the American Heart Association “CPR for the Healthcare Professional”.
3. A certificate from the American Safety and Health Institute“ CPR Pro- Professional Level CPR/AED”.
4. A 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 pools.

(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 that is not tethered to the pool basin, allowing movement of the device around the water. Rubber tubes in leisure rivers and swim wings are not considered non-tethered floatables.

(31) “NSF” means National Sanitation Foundation.

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

(33) “Owner” means the state, a political subdivision of the state, corporation, company, association, firm, partnership or individual owning or controlling any pool.

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

(35) “Patron” means a user of a pool.

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

(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 pool with a depth of greater than 24 inches (61centimeters), 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 pool or water attraction and the area within the basin’s enclosure and, in an indoor facility, the pool or water attraction and the required deck as specified 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 centimeters) and the flume carries less than 100 gallons of water.

(41) "Pool" means a structure, basin, chamber or tank, and appurtenant buildings and equipment, used for wading, swimming, diving, water recreation or therapy. Types of pools include pools used for swimming, combination pools, diving pools, exercise pools, experiential pools, mobile pools, therapy pools, wading pools, whirlpools, and cold soak pools.

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

(43) "Run-out slide" means a water slide where the rider does not exit into a plunge pool, but has a deceleration area that permits the patron to stop before exiting the slide flume.

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

(45) "Superchlorination" means the addition of an oxidizing product such as chlorine to pool water to raise the level of the oxidizer to raise the level of oxidizer to at least 10 ppm. "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 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 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 pool that has no above-water line wall on one or more sides where 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 pool having a maximum depth of 24 inches (61 centimeters) 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, zero-depth entry 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 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 pool, sometimes called a "spa", which uses higher temperature water than other 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) PERMIT REQUIRED. (a) No pool may be opened to the public until the owner of the pool has obtained a permit from the department or its agent by submitting an application under sub. (4) and paying the applicable fee specified in s. HFS 172.06. A separate permit is required for each pool basin.

(b) If any one of the following circumstances applies, a new initial permit is required, and the pool may not be opened to the public until the department has issued a new permit:

1. A pool for which a permit has been issued is later modified into a different pool type.
2. A permit holder sells or otherwise transfers ownership or operation of a pool to another person, except as provided in sub. (3).

(2) PERMIT DURATION AND RENEWAL. (a) Each permit issued under this chapter expires on June 30, except that a permit initially issued during the period beginning on April 1 and ending on June 30 expires on June 30 of the following year.

(b) Each permit shall be renewed annually as provided in sub. (4) (b).

(3) TRANSFERABILITY OF PERMITS. 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 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. Except as provided in this subsection, no permit issued under this chapter is transferable from one premise to another or from one person or entity to another.

Note: Under s. 254.64 (4) (a) 2, Stats., "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 s. 254.64(4)(a) 1 and s. 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.

(4) PERMIT APPLICATION. (a) *Initial Permit.* Application for an initial or new permit shall be made on an application form furnished by the department or its agent and shall be accompanied by all of the following:

1. The applicable fees specified under s. HFS 172.06 and any fees previously due to the department or its agent.

2. Proof that the department of commerce under s. Comm 90.04 (1) has approved plans and specifications for the pool, including modifications.

3. The completed final inspection report and approval from the department of commerce authorized inspector.

4. A statement from an engineer who worked on the pool indicating that it was completed in accordance with the pool's construction plan under s. Comm 90.04.

5. Information, as determined by the department or its agent, indicating that the pool will be maintained and operated in compliance with applicable federal and state laws and that rules have been implemented for the operation of the pool 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 to determine which agent to contact for an application form, write or phone: Bureau of Environmental and Occupational Health (BEOH), P.O. Box 2659, Madison, Wisconsin 53701-2659 (608-266-2835). You may also contact the BEOH at www.dhfs.wis.gov/fsrl.

(b) *Renewal Permit.* Application for a 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:

1. Payment of the applicable permit fee specified in HFS 172.06 before the expiration date of the permit.

2. If payment is not made before the expiration date of the permit, the late fee specified in s. HFS 172.06 (1) (c) in addition to the permit fee.

3. Information, as determined by the department or its agent, indicating that the pool will be maintained and operated in compliance with applicable federal and state laws and that rules have been implemented for the operation of the pool that will protect the health, safety, and welfare of the public.

(5) DEPARTMENT ACTION ON PERMIT APPLICATION. (a) The department or its agent shall issue or deny a permit within 30 days after receiving a complete application, all applicable fees, and the other information required under sub. (4).

(b) Except as provided in ss. 250.041 and 254.115, Stats., the initial issuance, renewal or continued validity of a permit issued under this subsection may be conditioned upon the requirement that the permittee correct a violation of this chapter, s. 254.47, Stats., or ordinances adopted under s. 254.69 (2) (g), Stats., within a period of time specified. If the condition is not met within the specified time, the permit is void. No person may operate a pool after a permit has been voided under this paragraph, and any person who does so shall be subject to the penalties under s. 254.47 (3), Stats. An owner whose permit is voided under this subsection may appeal the decision under s. HFS 172.09.

(c) The department or its agent may refuse to issue or renew a permit to operate a pool under any of the following circumstances:

1. The department or its agent has not conducted a pre-inspection of a pool for which an initial or new permit is required under sub. (1).

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

3. All applicable fees under s. HFS 172.06 have not been paid, including the permit fee, pre-inspection fee, re-inspection fee, or other applicable fees.

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

5. The owner, applicant, or permit holder has failed to provide the department or its agent with information required under sub. (4).

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, provided such violation is related to the operation of the pool.

(d) If the department or its agent denies an application for a permit, the applicant shall be given reasons, in writing, for the denial and information regarding appeal rights under HFS 172.09.

(6) **VOIDED PERMIT FOR FAILURE TO PAY FEES.** If an applicant or owner fails to pay all applicable fees, late fees and processing charges under s. HFS 172.06 within 15 days after the applicant or owner receives notice of an insufficiency under s. HFS 172.06 (2), or within 45 days after the expiration of the permit, whichever occurs first, the permit is void. An owner whose permit is voided under this subsection may appeal the decision under s. HFS 172.09. In an appeal concerning a voided permit under this subsection, the burden is on the permit applicant or owner to show that the entire applicable fees, late fees and processing charges have been paid. During any appeal process concerning a payment dispute, operation of the pool is deemed to be operation without a permit and is subject to the fees under s. HFS 172.06 (1) (e) in addition to the fees otherwise due, unless the applicant or owner meets its burden of proof under this subsection.

(7) **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) **TYPES OF FEES.** (a) *Pre-inspection fee.* The owner of a pool shall pay the applicable pre-inspection fee listed in Table HFS 172.06 to the department before an initial or new permit is issued under s. HFS 172.05(1).

(b) *Permit fee.* The owner of a pool shall pay the applicable permit fee listed in Table HFS 172.06 to the department for each pool that the operator applies for a permit to operate under s. HFS 172.05 (1) or (2).

(c) *Late fee.* If the permit fee for a permit renewal is not paid before the expiration date of the permit, the owner of the pool shall pay to the department a late fee of \$75 in addition to the renewal permit fee.

(d) *Re-inspection fee.* If the department conducts a re-inspection of a pool 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. The department shall assess an additional \$50 fee for any additional re-inspection conducted under s. HFS 172.07 (1) (b) 4.

(e) *Fees for operating without a permit.* Any pool found to be operating without a permit shall pay to the department an amount equal to the annual permit fee, in addition to all applicable fees and any processing charges under s. HFS 172.05 (6).

Note: Anyone operating a pool without a permit is also subject to a fine of not less than \$25 nor more than \$250 under s. 254.47 (3), Stats.

(f) *Duplicate permit.* The department shall charge the operator of a pool \$10 for a duplicate permit.

**Table HFS 172.06
Fee Schedule**

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

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 all applicable fees under sub. (1) and the financial institution's processing charges 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 ss. 254.69 (2) and 254.85 (1), Stats., an authorized employee or agent of the department, upon presenting proper identification, may enter any pool area, including the recirculation equipment and piping area, at any reasonable time, for any of the following purposes:

1. To inspect the pool.
2. To determine if there has been a violation of this chapter or s. 254.47, Stats.
3. To determine compliance with previously written violation orders.
4. To secure samples or specimens.
5. To examine and copy relevant documents and records, provided such information is related to the operation of the pool.

6. To obtain photographic or other evidence needed to enforce this chapter.

(b) *Re-inspections*. 1. The department or its agent may re-inspect a pool whenever an inspection or the investigation of a complaint reveals the existence of a violation that is potentially hazardous to the health and welfare of patrons or employees of the pool.

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 HFS 172.06, or applicable charges as determined by an agent of the department.

4. If an additional re-inspection is required because a violation has not been corrected in the scheduled time, the department shall assess the owner an additional \$50 reinspection fee as authorized under s. HFS 172.06 (1) (d), 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.

(2) **GENERAL ORDERS TO CORRECT VIOLATIONS.** (a) If upon inspection of a pool, the department or agent finds that the pool 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 pool.

(c) Any person who fails to comply with an order of the department shall forfeit \$10 for each day of noncompliance after the order is served upon or directed to him or her. A person may appeal a forfeiture under s. HFS 172.09.

(3) **TEMPORARY ORDERS.** (a) As provided in s. 254.85, Stats., whenever the department or agent has reasonable cause to believe that an immediate danger to health exists as a result of an inspection under sub. (1), the department or agent may issue a temporary order 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. Except as provided in par. (c), the temporary order shall remain in effect for 14 days from the date of delivery, but 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 specified in subd. 1. has expired, whichever occurs first. If, upon completed analysis or examination, the department or agent determines that construction, sanitary condition, operation or

method of operation of the premises or equipment does not constitute an immediate danger to health, the department or agent shall immediately notify the owner, operator or responsible supervisor in writing and the temporary order shall terminate upon receipt of the written notice.

(c) If the analysis or examination shows that the construction, sanitary condition, operation or method of operation of the premises or equipment constitutes an immediate danger to health, the department or agent, within the effective period of the temporary order specified in par. (b) 1., shall provide written notice of the findings to the owner, operator or responsible supervisor. Upon receipt of the notice, the temporary order remains in effect until a final decision is issued under s. HFS 172.09 (2). 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) Any person who fails to comply with a temporary order issued by the department shall forfeit \$10 for each day of noncompliance after the order is served upon or directed to him or her and, under s. 254.85 (5) (a), Stats., may be fined not more than \$10,000 or imprisoned not more than one year in the county jail, or both. A person may appeal a forfeiture under s. HFS 172.09.

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 s. 254.47, Stats., 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 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 denial of a permit, a voided permit, suspension, revocation, forfeiture, or an order given under s. HFS 172.07 (1) (b) 4. or s. HFS 172.07 (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.

(e) As a condition for requesting a hearing under this subsection to appeal the voiding of a permit, an applicant or owner shall comply with sub. (3). In an appeal concerning voiding a permit, the burden is on the applicant or owner to show that the entire applicable fees, late fees and processing charges have been paid.

(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 15 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, the order is not contested or the owner and the department mutually agree that no purpose would be served by a hearing. A final decision shall be issued 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) Changes in or cessations of any operation or method of operation of the equipment or premises.

Note: A request for a hearing under sub. (2) may be submitted by mail or hand-delivered to the Department of Health and Family Services, at 1 W. Wilson St., Room 650, P.O. Box 7850, Madison, WI, 53707-7850, or faxed to the Department at (608) 266-7882. The hearing may be conducted by the department secretary, the secretary's designee, or a hearing examiner under s. 227.43 (1) (bu).

(3) If the department voids a permit under s. HFS 172.05 (6), the owner shall submit, within 15 days after receipt of the notice of the department's action, documentary evidence that all applicable fees, late fees and processing charges have been paid and that there are no outstanding payments due to the department.

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 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 pool shall have a water recirculation system with disinfection treatment and filtration equipment consisting of overflow gutters or skimmers, main drains, inlets, pumps, piping, and filters. The system shall be operated continuously except for seasonal closing or during periods of necessary maintenance.

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

(2) SKIMMERS AND RECIRCULATION FLOW. (a) The flow through each skimmer shall be adjusted as often as necessary to maintain a vigorous skimming action at each skimmer. The pool water level shall be maintained at an elevation so that continuous effective surface skimming is accomplished through skimmers or over the gutter lip. For gutter pools, approximately 75% of the required recirculation flow shall be through the gutter and 25% through the main drain during normal operation. For 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 pools 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 pool water recirculation rate except during maintenance operations. The turnover time for pools shall be as follows:

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

(b) *Water attractions.* The maximum turnover times for a water attraction constructed after the effective date of this rule 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 constructed after the effective date of this rule 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.	Load (gals/person)^a	Maximum Turnover
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(°C.)		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.

^aThe number is equal to posted patron load.

(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 pool 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. The 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 pools, 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 prohibited.

(b) *Material safety data sheet.* Material safety data sheets shall be readily available at the pool 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 that presents a danger to the patrons, including changing the gas tanks, shall be performed when the pool is not in use or is closed to public use.

(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 pool 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 the manufacturer's directions.

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

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

(c) *Gas chlorination*. 1. Where chlorine gas is used, all staff who operate equipment shall be trained in the handling and use of chlorine gas, including the use of the self-contained breathing apparatus.

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

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

4. A self-contained breathing apparatus designed for use in a chlorine gas atmosphere shall be stored where it is immediately accessible to personnel who enter the chlorine gas storage room. The apparatus shall be continuously usable and readily accessible, and replacement parts shall be readily accessible. The pool shall implement a written respiratory protection plan in compliance with 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 reviewed 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 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 respectively:

(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
<u>Plunge Pools and Wave Pools</u>		
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
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(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 to 7.8.

(d) *Alkalinity*. The total alkalinity of pool water shall be maintained between 60 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 combined chlorine exceeds 0.5 ppm in an outdoor pool or 0.8 ppm in an indoor pool, 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 to reach breakpoint chlorination. The pool shall be closed to the public during periods of breakpoint chlorination when a chlorine product is used.

(f) *Maximum chlorine residual*. The maximum chlorine residual in any pool shall not exceed 10 ppm.

(g) *Maximum total bromine*. The maximum total bromine in a pool shall not exceed 20 ppm.

(5) ELECTRONIC MONITORING DEVICES. (a) When oxidation potential controllers are used the water potential shall be kept between 650-850 mV. When the water potential reads below 650 mV or above 850 mV the operator shall manually test the pool water with an approved test kit.

(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 pool 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 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 or pool 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. Pool water shall be free of chemical, physical and microbial substances known to be, or suspected of being, capable of creating toxic reactions or skin or membrane irritations.

(2) WATER CLARITY. Water containing 0.5 or less Nephelometric Turbidity Units is considered clear. The main drain shall be readily visible from the pool deck.

Note: Water containing 0.5 or less Nephelometric Turbidity Units is considered clear.

(3) WATER SAMPLING. (a) *Sample collection and analysis.* The department or its agent may collect samples of pool 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 pools 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 at www.legis.state.wi.us/rsb/index and may be purchased from the American Public Health Association, 800 I Street, N.W., Washington, D.C. 20001-3710.

(b) *Bacteriological standards.* Water quality should be maintained to meet the following standards:

1. 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 may not exceed 200 colonies in a 1 mL sample.

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

(4) ALGAE CONTROL. An algaecide may be used in a pool 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 of a type approved by the department shall be maintained for testing the pool water pH; the disinfectant residual; the combined chlorine level, when chlorine is used; the total alkalinity; and the cyanuric acid concentration, when used.

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

(3) The disinfectant testing reagent shall be diethyl-p-phenylene diamine (DPD) in powder or liquid form. A test kit using the titrimetric method (FAS-DPD) for chlorine and bromine testing

and colorimetric comparators used for additional water testing shall be approved by the department and shall provide for accurate comparison in the required range for each test as stated in 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) Except as provided under sub. (2) or (3), water shall be tested for pH and disinfectant residual daily before the pool is open to the public or before the pool is in use, and at least one other time during the day's peak patron load. When chlorine is used, the water shall also be tested at least twice a week for the combined chlorine level. Water shall also be tested at least once a week for total alkalinity. When cyanuric acid is used in the water basin, the cyanuric acid concentration in the water shall be tested at least once a week.

(2) Except as specified under sub. (3) water in a whirlpool, therapy pool, or exercise pool shall be tested for pH and disinfectant residual before the pool is open to the public or before the pool is in use and at least 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) Water in a pool that has a properly functioning electronic monitoring device installed to control pH and disinfectant residual shall be manually tested at least 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 pool 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 pool is open. Water levels in pools with skimmers shall be maintained at a level such that the weir is half submerged. Pools designed with gutters shall have a continuous water supply over the gutter to provide effective skimming.

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

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

HFS 172.20 Operator. (1) POOLS. (a) *General requirement.* Each pool shall be under the supervision of at least one operator, except that contiguous multiple pools operated under the same owner may be supervised by one operator.

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

(2) SPECIAL REQUIREMENTS FOR WATER ATTRACTIONS. (a) *Certified water attraction operator required.* 1. Each water attraction and water attraction complex shall be staffed by at least one certified water attraction operator by January 1, 2009. An owner of a water attraction or water attraction complex that first applies for a permit under s. HFS 172.05 after January 1, 2009 shall be staffed by a certified water attraction operator within 90 days after 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 water attraction operator within 90 days after a certified operator's departure.

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

HFS 172.21 Responsible supervisor. (1) Each pool shall be under the supervision of at least one responsible supervisor at all times when the pool is in use or is open to the public. The responsible supervisor shall be on the premises or available via a phone number posted by the emergency phone to respond to an unsafe or unsanitary condition at any time the pool is open for use. The responsible supervisor shall maintain order, ensure that safety equipment is in place, and enforce pool use regulations governing safety, sanitation and water testing.

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

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

1. The square footage of the 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 pool 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 of 4 inches high, "No Lifeguard on Duty".

(d) A 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 letters at least 4 inches high: "Non-guarded area."

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).

(2) QUALIFICATIONS. (a) A copy of each lifeguarding certification, first aid certification, and CPR certification held by lifeguard staff shall be maintained at the pool and shall be made available for inspection by the department.

(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 one or more 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) At all times when on duty a lifeguard shall wear clothing that is conspicuously marked "Lifeguard" or "Guard", a rescue tube with a harness as instructed in national certification courses, and a whistle.

(b) A lifeguard who is assigned to supervise a pool or water attraction may not be assigned duties that may distract the lifeguard's attention from observing a patron in the pool or water attraction area or that may hinder the lifeguard's ability to provide immediate assistance to a patron.

HFS 172.23 Lifeguard and attendant placement and staffing requirements. (1)
GENERAL. (a) 1. Each pool 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 pool is in use or is open to the

public. If the requirements in Table HFS 172.23-A and Table HFS 172.32-B conflict, the pool 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 pool 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 pool exceeds 336 patrons, one lifeguard shall be provided for each additional 100 patrons or fraction thereof.

(b) A pool 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 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 pool 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 Pool Type

Pool Type	Lifeguard and Attendant Staffing Requirements
Activity Pools	At least one lifeguard is required if the pool contains one of the following: 1. A pad walk. 2. A tethered floatable more than 18 inches long in 2 directions. Appendages such as alligator feet should not be included in determining the length. 3. A non-tethered floatable. Non-tethered floatables do not include tire inner tubes used in leisure rivers or waterslides.
Leisure Rivers	At least one attendant is required at the entrance of the leisure river. The attendant shall have a clear line of sight for all areas of the river, or additional attendants are required so that all areas of the river are in view of at least one attendant.
Vanishing Edge Pools	At least one lifeguard regardless of the square footage, unless the water attraction is limited to adult use only.
Vortex Pools and Current Pools	At least one lifeguard is required whenever the pool is occupied by a patron.
Wave 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.
Pools with a Visual Obstruction	At least one attendant is required if the pool has a visual obstruction larger than 10 feet in length by 6 feet in height by 5 feet in width or if the visual obstruction covers more than 20 percent of the pool's basin.
Pools with Diving Boards or Platforms	At least one lifeguard for every 2 diving boards or platforms in the same pool.
Pools with Slides	<ol style="list-style-type: none"> 1. Children's Slide: No attendant is required. 2. Poolslide: Greater than 4 feet but less than 6 feet in height, which drops into water greater than 4 feet deep: At least one lifeguard. 3. Poolslide: Less than 6 feet in height, with an obstructed view of slide terminus at 43 inches at entry point: At least one lifeguard. 4. Drop slide: Less than 6 feet in height: At least one lifeguard 5. Run-out slide: <ul style="list-style-type: none"> • Greater than 6 feet in height clear view of the terminus end: At least one attendant on top platform. • Greater than 6 feet obstructed view of the terminus end: At least one attendant on top and bottom of run-out. • Less than 6 feet clear view of terminus end: No attendant or lifeguard required 6. Waterslide: <ul style="list-style-type: none"> • Greater than 6 feet: Attendant on top of the slide, lifeguard on bottom and means of 2-way communication between attendants and lifeguards. • Less than 6 feet with a clear view of terminus end and no obstructions around slide: At least one lifeguard.

Wading Pools	Wading pools do not require a lifeguard or attendant unless there is a large obstruction per 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 letters that are at least 4 inches high: Non-guarded area.
Therapy Pools	At least one attendant who has current CPR certification is required for a therapy.
Interactive Play Attraction (Splash Pads)	An interactive play attraction not restricted by an enclosure shall have at least one attendant on the premises. The attendant shall provide periodic supervision of the water attraction as specified in the staffing plan.

HFS 172.24 Instructional programs. A pool that is used for instructional purposes shall be staffed by a lifeguard when the instructional program is in session. If the coach or instructor that provides instruction during the program is a lifeguard, the requirement of this subsection is met provided the coach or instructor can supervise the entire group. A pool that normally requires a lifeguard and that is open to the public during an instructional program session shall be supervised by an additional lifeguard or attendant pursuant to 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) **POOLS.** (a) *Pools used for swimming and combination pools.* The maximum number of patrons permitted to be in the water of a pool used for swimming or a combination pool at any one 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 pool where a lifeguard is required.

(2) TELEPHONE. For outdoor pools, a working telephone shall be available in the pool area. For indoor pools, a working telephone shall be available within the enclosed area around a pool. A current list of emergency numbers and the facility's location shall be attached to or posted near the telephone. Cellular or cordless phones may not be used to comply with this subsection.

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 operation may be made under s. HFS 173.02 (2).

HFS 172.27 First aid supplies. (1) A first aid kit of a sort approved by the department and 2 durable blankets in good condition shall be available at each pool area. The first aid kit shall contain all of the following items:

1. Gauze pads - 4" x 4" .

2. Gauze pads – 8" x 10" .

3. Adhesive bandages.

4. Triangular bandages.

5. Scissors.

6. Gauze roller bandage.

7. Tweezers.

8. Adhesive tape.

9. Eye wash.

10. Elastic bandage.
11. Disposable surgical gloves.
12. Resuscitation pocket face mask.
13. Instant cold packs.

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

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

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

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

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 and after use of toilet facilities.
4. Do not run or engage in rough play in the pool area.
5. Do not bring animals into the pool area.
6. Diaper changing on the pool deck is prohibited.
7. Glass and shatterable items are prohibited in the pool area.

(c) A pool that is 200 square feet in area or greater that does not have an approved diving well configuration shall have "NO DIVING" signs 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 pool area. The maximum patron load as stated in s. HFS 172.25 may not be exceeded.

(e) If non-toilet-trained children are permitted in the pool, the children shall be required to wear swim diapers.

(2) **POOL SLIDES AND WATERSLIDES.** For the plunge section of a pool, the 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) Minors under the age of 12 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) Minors under the age of 6 and under are not permitted in the whirlpool.

(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 shall be conspicuously posted on the periphery of the interactive play water attraction and shall clearly state all of the following in at least 1 inch letters:

- (a) Do not enter the interactive play 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 interactive play attraction.
- (c) Do not bring animals into the interactive play 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 Pool closing criteria. Any of the following conditions or situations shall constitute sufficient reason for the operator or responsible supervisor to close a pool or for the department or its agent under s. HFS 172.07 (3) to order that the pool be closed:

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

(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. or 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 pools used for swimming 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 pool 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 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 pool operator or responsible supervisor shall complete monthly reports of daily pool operation on forms provided by the department or agent. The monthly reports shall be submitted, as requested, to the 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. Pool 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 pool operation and maintenance.
8. 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 that monthly reports, fecal accident reports, daily inspection results, and operational tests shall be kept for at least 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) POOL AREA. (a) *General.* Each pool shall be routinely brushed or vacuumed to keep the basin and surrounding appurtenances free of sediment, lint, hair, debris, algae and slime growth and discoloration. Cracks or other defects shall be repaired and the pool interior shall be refinished as necessary to maintain it in a cleanable condition. The pool and water area shall be maintained in a clean and sanitary condition. Glass and shatterable plastic items shall be prohibited in the pool area.

(b) *Deck maintenance and cleaning.* Pool areas and appurtenances, including safety pads, shall be maintained in good repair and shall be rinsed daily to prevent microbial growth. Indoor pool decks shall be disinfected at least weekly. Depth markings along the edge of the pool shall be maintained to be clearly visible and readable. The deck shall be kept unobstructed except for easily portable furniture and equipment.

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

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

(e) *Equipment*. Pool 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 may 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 and air quality 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 – POOL, SLIDE, AND WATER ATTRACTION CONSTRUCTION AND DESIGN

HFS 172.34 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 pool, pool slide, waterslide or water attraction and deck may not be permitted in the pool area.

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

(3) All outdoor pool enclosures shall be at least 5 feet high.

(4) All pool areas shall be enclosed and have self-closing and latching gates or doors that are lockable.

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

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

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

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

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

HFS 172.36 Water attraction, play features, and slide design. (1) GENERAL. (a) Water attractions and play features shall be designed, assembled, constructed and maintained in accordance with recognized safe practices as defined in s. Comm 34.01 (15), 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 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, as defined in s. Comm 34.01 (15).

(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, as defined in s. Comm 34.01 (15).

(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, as defined in s. Comm 34.01 (15), 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 all of 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 may not be allowed in the interactive play attraction area.

(d) Water spray features shall be activated for 30 minutes before the daily opening of the interactive play 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, as defined in s. Comm 34.01 (15).

(b) Improperly maintained, repaired or modified water attractions may 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 pool slides shall be inspected and their operation tested each day before use by patrons. The inspection and operational test shall include the operation of all control devices and safety equipment.

(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 sixth month following publication in the Wisconsin administrative register, as provided in s. 227.22 (2), Stats.

Wisconsin Department of Health
and Family Services

Dated: June 22, 2007

By: _____
Kevin R. Hayden, Secretary

SEAL: