

1997-98 SESSION
COMMITTEE HEARING
RECORDS

Committee Name:

Joint Committee for
Review of
Administrative Rules

(JCR-AR)

Sample:

- Record of Comm. Proceedings
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- 97hr_AC-EdR_RCP_pt01b
- 97hr_AC-EdR_RCP_pt02

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- 97hr_JCR-AR_Misc_pt06
- Record of Comm. Proceedings ... RCP
-

COMM 90 / HFS 172 - BED/BKES

Clausen, Shayne

From: La Grange B & B[SMTP:lagrange@compufort.com]
Sent: Sunday, June 28, 1998 2:07 PM
To: Sen.Welch
Subject: Review of Pool Regulations for Bed & Breakfasts

Dear Senator Welch:

In regard to your review of swimming pool regulations for Bed & Breakfast establishments in Wisconsin, I would like to point out that many of the rules as currently stated, although they apply directly to large, public facilities, are not appropriate for our situations. To comply with items such as required water temperature (we have an outdoor pool) and drinking water fountains (we have none at the pool site) would cause undue hardship on those of us who have pools built prior to 1990.

Guests at our business (by statute, also our home), which consists of three guest rooms (no more than a total of six guests per night), rarely use the swimming pool (28' diameter x 4' deep) although we carefully maintain chlorine levels and proper Ph balance. It is generally no more than a pleasant feature, an additional spot for guests to relax. Stringent regulations make use of this pool by guests impossible. Further, to have a pool and then to tell guests that it is unavailable is embarrassing to us and disappointing to the guests.

As a small part of the tourist industry, we contribute to the state by collecting sales tax, county tax, and paying license fees annually. We ask for your consideration in this matter by exempting bed and breakfast businesses from excessive rules regarding swimming pools.

Thank you for your attention to this matter.

Sincerely,

Dennis Rybicke
La Grange Bed & Breakfast
Fort Atkinson



1884
PHIPPS
INN

A Bed & Breakfast Inn

1005 Third Street • Hudson, Wisconsin 54016 • 715-386-0800

June 26, 1998

Senator Robert Welch, Co-Chair
Joint Committee for Review of Administrative Rules
P.O. Box 7882
Madison, WI 53707-7882

Representative Glenn Grothman, Co-Chair
Joint Committee for Review of Administrative Rules
P.O. Box 8952
Madison, WI 53708-8952

Re: Public whirlpool/swimming pool at B & Bs/small inns

Dear Senator Welch and Representative Grothman:

My husband and I have owned and operated the Phipps Inn, a bed and breakfast, for the past eight years. Although we do not have a public whirlpool/swimming pool and have no plans for the same, we strongly support the suspension of the rules for pools as they relate to bed and breakfast inns until new rules can be sufficiently reviewed and administered.

The rules as they currently stand are unnecessarily burdensome. For our friends and competitors at other Bed and Breakfasts who need comply with these rules requires an unreasonable expense that should not be necessary for the public's general safety. It is another example of rules being developed and/or enforced without an understanding of the bed and breakfast industry.

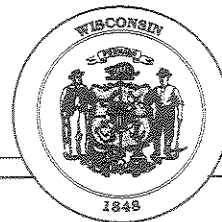
Should you have any questions concerning our position please do not hesitate to contact us. Thank you.

Respectfully submitted,

Cyndi Berglund

SHEILA E. HARSDORF
State Representative
Wisconsin's 30th Assembly District

MAY 01 1998



May 1, 1998

Senator Robert Welch, Co-Chair
Joint Committee for Review of Administrative Rules
1 East Main Street, Room 201
Madison, Wisconsin 53707

Representative Glenn Grothman, Co-Chair
Joint Committee for Review of Administrative Rules
125 West, State Capitol
Madison, Wisconsin 53708

Dear Senator Welch and Representative Grothman:

For several months I have been working with the Wisconsin Innkeeper's Association and others to address difficulties with the current licensing of swimming pools and whirlpools at Bed and Breakfast establishments.

Under current Statute, Bed and Breakfasts must comply with COM 90 and HFS 172 of the Administrative Rules. While both Secretary McCoshen and Secretary Leraan have expressed a willingness to review and modify these rules as they apply to Bed and Breakfasts which are admittedly unique from other lodging establishments, the summer swimming season is almost upon us and there has yet to be movement with respect to rule modifications.

I am respectfully requesting that the Joint Committee for Review of Administrative Rules suspend the rules outlined below until such time that the rules are sufficiently reviewed and modified by both departments.

Thank you for your consideration of this request. Please feel free to contact me if you have questions or would like to discuss this matter in greater detail.

Sincerely,

SHEILA E. HARSDORF
State Representative
30th Assembly District

SEH:ksp

attch

cc: Secretary Leraan, Department of Health and Family Services
Secretary McCoshen, Department of Commerce

MEMBER: JOINT COMMITTEE ON FINANCE

Request that the following subject areas in the current regulations be addressed in a different manner for both licensed Bed and Breakfasts for all pools constructed after January 1, 1990.

1. Location of first aid equipment
2. Acceptance of a manual log in lieu of an automatic timer for filtration equipment
3. Uniform step requirements in both whirlpools and swimming pools
4. Observation window (in a private room)
5. Drinking fountain requirement
6. Telephone location requirement
7. Location of the main drain in whirlpools and swimming pools
8. Continuous operation of circulating systems
9. Whirlpool and swimming pool decks at the same elevation
10. "Hosebibb" (water faucet) requirement
11. Specifications regarding emergency access to pool
12. NSF approved pumps
13. Temperature of circulated water
14. Drain dry whirlpool seats

Clausen, Shayne

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Respectfully submitted,

Cyndi Berglund

INTRODUCTION

Purpose and Structure

The Legislature, by s. 35.93 and ch. 227, Stats., directed the publication of the rules of executive agencies having rule-making authority in a loose-leaf, continual revision system known as the Wisconsin Administrative Code. The Code is kept current by means of new and replacement pages. The pages are issued monthly, together with notices of hearings, notices of proposed rules, emergency rules, instructions for insertion of new material, and other information relating to administrative rules. This service is called the Wisconsin Administrative Register, and comes to the subscriber near the middle and at the end of each month. Code pages are issued to subscribers only with the end of the month Register. The editing and publishing of the Register and Code is done by the Revisor of Statutes Bureau, Suite 800, 131 W. Wilson St., Madison, Wisconsin, 53703. (608-266-7275).

Availability

The complete code and the upkeep service are distributed to the county law libraries; to the libraries of the University of Wisconsin Law School and Marquette University Law School; to the State Historical Society; to the Legislative Reference Bureau and to the State Law Library, and to certain designated public libraries throughout the state.

The sale and distribution of the Register, Code and of its parts is handled by Department of Administration, Document Sales, P.O. Box 7840, Madison, Wisconsin 53707. (608-266-3358 information) (1-800-362-7253 or 608 264-9419 charge card orders).

Table of Contents

Each code with more than one chapter will have a table of chapters. After the title of each chapter will be the page numbers on

which the chapter begins. Each chapter will have a table of sections.

History Notes

Each page of the code as it was originally filed and printed pursuant to the 1955 legislation, had a date line 1-2-56. A rule which is revised or created subsequent to the original printing date is followed by a history note indicating the date and number of the Register in which it was published and the date on which the revision or creation of the rule became effective. Additions to a section's history note will be shown in **bold face** when those affected code sections are first released. The absence of a history note at the end of a section indicates that the rule has remained unchanged since the original printing in 1956. The date line at the bottom of the page indicates the month in which the page was released, but does not necessarily mean a substantive change has occurred on that page. Some common abbreviations used in the history notes are: cr. - created, am. - amend, r. - repeal, recr. - recreate, renum. - renumber, eff. - effective and emerg. - emergency.

In some instances an *entire* chapter has been repealed and recreated or renumbered subsequent to the original printing date. When this occurs a note has been placed at the beginning of the chapter after the table of sections to contain this information. A separate history note appears after each section indicating the date when the revision or creation became effective.

Index

The index for the complete Wisconsin Administrative Code will be found in the last volume of the complete set. It will be recompiled, reprinted and distributed at least 3 times a year. Some codes have a separate index prepared by the agency involved. See the Uniform Dwelling Code (chs. ILHR 20-25) and the Building and Heating Code (chs. ILHR 50-64) as examples.

Chapter Comm 90

DESIGN AND CONSTRUCTION OF PUBLIC SWIMMING POOLS

Comm 90.01	Authority and purpose.
Comm 90.02	Scope.
Comm 90.03	Definitions.
Comm 90.04	Plans and specifications.
Comm 90.05	Location and structural stability of a pool.
Comm 90.06	Water supply for a pool.
Comm 90.07	Permissible patron load.
Comm 90.08	Pool basin.
Comm 90.09	Pool deck and deck equipment.
Comm 90.10	Outdoor pool enclosure.
Comm 90.11	Recirculation system for a pool.

Comm 90.12	Disinfection of pool water.
Comm 90.13	Piping for a pool.
Comm 90.14	Pool water heaters and thermometer.
Comm 90.15	Lifeguard chair requirements for pools.
Comm 90.16	Dressing, shower and toilet facilities at pools.
Comm 90.17	Electrical wiring and lighting.
Comm 90.18	Wading pools.
Comm 90.19	Whirlpools.
Comm 90.20	Water recreation attractions.
Comm 90.21	Enforcement.

Note: Chapter HSS 171 as it existed on November 30, 1989 was repealed and a new chapter HSS 171 was created effective December 1, 1989; Chapter HSS 171 was renumbered Chapter ILHR 90, Register, March, 1994, No. 459, eff. 4-1-94; Chapter ILHR 90 was renumbered to be chapter Comm 90 under s. 13.93 (2m) (b) 1., Stats., and corrections made under s. 13.93 (2m) (b) 6. and 7., Register, April, 1998, No. 508.

Note: See ch. HFS 172 for rules relating to safety, maintenance and operation of public swimming pools.

Comm 90.01 Authority and purpose. This chapter is promulgated under the authority of s. 145.26, Stats., to regulate the design and construction of public swimming pools, including whirlpools and water recreation attractions, in order to protect the health and safety of the public.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; am. (1), Register, March, 1994, No. 459, eff. 4-1-94.

Comm 90.02 Scope. (1) **APPLICABILITY.** This chapter consists of minimum requirements that apply to the design and construction of all new public swimming pools and to the reconstruction or alteration of any existing public swimming pool.

(2) **PETITION FOR VARIANCE.** (a) The department will consider and may grant a variance to an administrative rule upon receipt of a fee and a completed petition for variance form from the owner, provided an equivalency is established in the petition for variance which meets the intent of the rule being petitioned. The department may impose specific conditions in granting a variance to promote the protection of the health, safety or welfare of the public. Violation of those conditions under which the variance is granted constitutes a violation of this chapter.

(b) Petitions for variance shall be submitted and processed in accordance with ch. ILHR 3.

Note: The fees for submission and review of petitions for variance on rules of this chapter are specified in s. Comm 2.52.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; r. and recr. (2), Register, March, 1994, No. 459, eff. 4-1-94.

Comm 90.03 Definitions. In this chapter:

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

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

(4) "Deck" means the approved, unobstructed walking surface around the pool.

(5) "Deep portion" means the deep side of the breakpoint or that portion of a pool having a design water depth greater than 5.5 feet (1.7 m).

(6) "Department" means the department of commerce.

(7) "Mobile pool base" means the location where a mobile pool is stored or serviced and where a source of potable water and an approved sewerage system are available.

(8) "NSF" means the national sanitation foundation.

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

(10) "Patron" means a user of the pool.

(11) "Pool" means a structure, basin, chamber or tank used for wading, swimming, diving, water recreation, therapy or bathing. Types of pools are as follows:

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

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

(c) "Exercise pool" means a pool small in area and of shallow depth usually associated with a health spa.

(d) "Limited purpose pool" means a pool used for a purpose not otherwise defined, such as for apparatus swimming, diving and underwater photography training, medically administered therapy, another special use by the public or for use by physically or mentally handicapped persons.

(e) "Mobile pool" means a pool constructed on a mobile structure which can be transported from place to place.

(f) "Reverse flow pool" means a pool of a design in which the water enters at or near the bottom and leaves at or near the water line.

(g) "Swimming-only pool" means a pool used for swimming purposes only.

(h) "Wading pool" means a shallow pool used primarily by children.

(i) "Waterslide plunge pool" means a pool located at the exit end of a waterslide flume and intended and designed to receive sliders emerging from the flume.

(j) "Wave pool" means a pool designed for generating waves for recreational purposes.

(k) "Whirlpool" means a relatively small pool which uses high temperature water and which may include a water agitation system. A "whirlpool" is sometimes called a spa.

(12) "Preliminary plan review" means a review of plans and specifications that are not intended for final approval action, or an office conference relating to these plans and specifications, with the intent of informing the engineer or architect of code requirements that may involve mathematical or hydraulic computations. Preliminary plan review does not include an office or telephone consultation requesting rule clarification.

(13) "Public swimming pool" means a pool used for one or more purposes described in sub. (11) except for a pool serving fewer than 3 individual residential quarters such as homes or apartments. A public swimming pool includes a pool serving or installed for the state or any political subdivision of the state, including a school district; a pool serving or installed at a motel, hotel, resort, camp, club, association, housing development or school, or a religious, charitable or youth organization; a mobile pool; and a pool at an educational or rehabilitative institution.

Included in the meaning of a "public swimming pool" are buildings, equipment and appurtenances, irrespective of whether or not a fee is charged for their use. A public swimming pool does not include a public swimming beach. In this subsection, "beach" means any designated body of water not contained in a pool structure, basin, chamber or tank and used for one or more purposes described in sub. (11), and the shore leading to that body of water.

(14) "Recirculation system" means the pool outlets and inlets and the equipment and piping designed to circulate swimming pool water at a predetermined quantity and velocity in order to treat and purify the water.

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

(16) "Revised submittal" means revised plans or specifications submitted to the department which either show changes in the pool shell or recirculation system design which necessitate additional mathematical or hydraulic computations or such a large number of other changes that, in the opinion of the department, they cannot be dealt with by specification addenda.

(17) "Shallow portion" means the shallow side of the breakpoint or that portion of a pool having a design water depth of 5.5 feet (1.7m) or less.

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

(19) "Water recreation attraction" means a public bathing or swimming facility with design and operational features that provide patron recreational activity which is different from that associated with a conventional swimming pool and purposefully involves immersion of the body partially or totally in the water.

Note: Examples of water recreation attractions are waterslide plunge pools, lazy river or tubing pools and wave pools.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; r. (1), r. and recr. Register, March, 1994, No. 459, eff. 4-1-94.

Comm 90.04 Plans and specifications.

(1) APPROVAL. (a) Every owner, personally or through his or her engineer or architect, shall submit to the department plans and specifications covering construction, alteration or reconstruction of public swimming pools or installation or alteration of their equipment prior to the start of construction or installation. No deviation from the plans and specifications or conditions of approval may be made without prior approval of the department.

(b) Within 30 days after receiving complete plans and specifications for approval, the department shall either approve the plans and specifications or deny approval of the plans and specifications.

(c) Priority plan review may be requested by the owner or his or her representative. An appointment shall be made with the department for the department to examine the plans in less than the normal processing time. Delivery of the plans for priority review shall be made in person.

(d) Fees for plan review shall be as prescribed in s. Comm 2.68. The proper fee shall be submitted with the plans and specifications under par. (a).

(2) PREPARATION. (a) *Prepared within Wisconsin.* Except as provided in par. (b), plans and specifications for all public swimming pools and their equipment, including adequate supporting design data, shall be prepared by a Wisconsin registered architect or professional engineer and bear that person's seal and signature.

(b) *Prepared outside Wisconsin.* Plans, specifications and calculations prepared by an architect or engineer not registered in

Wisconsin shall be reviewed if they are provided in the following form:

1. The plans, specifications and calculations bear the signature and seal or stamp of an architect or engineer registered in a state other than Wisconsin; and

2. The plans, specifications and calculations have attached a certificate dated, signed and sealed or stamped by an architect or engineer registered in Wisconsin which states that the attached plans, specifications and calculations were prepared in a state other than Wisconsin by an architect or professional engineer registered in that state, specifically describes the work performed by the Wisconsin registered architect or engineer in reviewing the plans, states that the design is structurally safe, and states that the plans and specifications comply with this chapter.

(3) SUBMISSION. Three identical sets of plans and specifications shall be submitted to the department, 2 of which shall be retained by the department and one returned by the department to the owner.

Note: The plans and specifications should be sent to Bureau of Integrated Services, P.O. Box 7162, Madison, WI 53707.

(4) DETAILS. The plans and specifications shall include all of the following:

(a) *General.* On the plans or in a separate report:

1. The name and address of the owner; and

2. The location of the public swimming pool by street address or, if none is available, by quarter-quarter section, section, town, range, township and county.

(b) *Site.* Site information;

(c) *Plot plan.* A general map and detailed drawings showing the floor plan of pertinent portions of the structure, pool orientation, pool surface area and volume. In addition, water supply facilities, public or private sewers and relative elevations of paved or other walkways and the equipment room floor, and the designed pool water level shall be shown in the detailed drawing. When public water and sewer systems are proposed to serve the public swimming pool, the elevations of storm and sanitary sewer inverts and street grade shall be shown;

(d) *Construction plans.* Detailed scaled and dimensional drawings which shall include:

1. A pool layout plan showing longitudinal and transverse cross-sections of the pool through the main drain outlet; location and type of inlets, overflows, pool drains, vacuum fittings, deck drains, drinking fountains, piping, hosebibbs, fences and telephones; design of the deck, the curb or walls enclosing the pool, paved walkways, overflow gutters or devices; and the location and design of ladders, stairs, diving boards and artificial lights;

2. A flow diagram showing the location, plan and elevation of filters, pumps, chemical feeders, ventilation devices, heaters, surge tanks including operating levels, backflow preventers, valves, piping, flow meters, pressure gauges, thermometers, test cocks, sight glasses and the drainage system for disposal of pool and filter washwater; and

3. The location, plan and elevation drawings for any bathhouse facilities provided, including dressing rooms, lockers and basket storage, and showers, toilets and other plumbing fixtures; partitions and devices for routing of swimmers; storage facilities for first-aid and maintenance equipment; floor construction; and means of lighting and ventilation; and

(e) *Specifications.* Complete technical specifications for the construction of the pool and all appurtenances to accompany the drawings under par. (d), including:

1. All construction details not shown on the drawings;

2. Detailed requirements for the type, size, operating characteristics and rating of all mechanical and electrical equipment;

3. Detailed information about plumbing fixtures and piping, when applicable, such as in bathhouses or when floor drains are used as deck drains;

4. The sources of all water supplies, with the total alkalinity, pH and iron and manganese content of the supply indicated on submitted drawings or specifications;

5. Filter media such as diatomaceous earth, sand, gravel or other approved material; and

6. Miscellaneous appurtenances.

(5) CONSTRUCTION SUPERVISION AND CERTIFICATION. (a) *Supervision.* 1. In this paragraph, "supervision" means the performance of an architect's or engineer's service of reasonable on-site observation to determine that the completed construction is in substantial compliance with approved plans and specifications. "Supervision" does not include the supervision of construction by a contractor.

2. Every public swimming pool shall be constructed under the supervision of a Wisconsin registered architect or professional engineer. The architect or engineer shall be responsible for the facility being in substantial conformance with the plans and specifications approved by the department.

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

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

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

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; correction in (1) (d) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 1990, No. 409; am. (1) (d), Register, March, 1994, No. 459, eff. 4-1-94.

Comm 90.05 Location and structural stability of a pool. (1) *LOCATION.* Each public swimming pool shall be located at a site conducive to good operation, maintenance, safety and freedom from contamination. The site shall have suitable drainage and be separate from sources of harmful environmental factors. Swimming pools may not be located in the regional floodplain of a river, stream or flow-through lake. For areas bounding a landlocked lake, the highest historic water level shall be used.

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

Note: The national sanitation foundation's swimming pool equipment standards may be consulted at the department's bureau of integrated services or at the secretary of state's office or the revisor of statutes bureau. Copies may be obtained from the National Sanitation Foundation, NSF Building, P.O. Box 1468, Ann Arbor, Michigan 48106.

(3) *STRESS RELIEF.* Provision shall be made for the relief of stresses which may occur as a result of unbalanced hydrostatic pressures and to protect the pool structures from stresses which may develop due to freezing.

(4) *METAL POOLS.* All metal pools shall be protected against corrosion by galvanic action or aggressive water by provision of appropriate grounding devices, bonding, insulation or sacrificial rods or other units.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.06 Water supply for a pool. (1) *GENERAL.* The water supplied to a public swimming pool shall be from a potable water source approved by the department of natural resources and shall comply with s. HFS 172.10.

(2) *CROSS-CONNECTION CONTROL.* All portions of the water distribution system serving the pool and auxiliary facilities shall be protected against backflow and backsiphonage. Water introduced into the pool, either directly or to the recirculation system, shall be supplied through a minimum air-gap equal to 2 pipe diameters or 6 inches (15.3 cm), whichever is less, or by another method approved by the department.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.07 Permissible patron load. (1) *COMBINATION, SWIMMING-ONLY OR EXERCISE POOLS.* The number of people permitted to be in the water of a swimming-only, combination or exercise pool at any one time shall be computed on the basis of allowing 15 square feet (1.4 square meters) per patron for the shallow portion of the pool and 25 square feet (2.3 square meters) per patron for the deep portion of the pool. Three hundred square feet (27.9 square meters) of pool water surface around each diving board and diving platform shall be excluded in computing the permissible patron load. An additional 10 patrons for each diving board shall be included in the computation.

(2) *WADING POOL.* The permissible patron load for wading pools shall be computed by allowing 15 square feet (1.4 square meters) per patron.

Note: See s. Comm 90.19 (4) (d) for the permissible patron load for whirlpools.
History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.08 Pool basin. (1) *DEPTHS.* Water depth at the end wall in the shallow portion of a combination, limited purpose, exercise or swimming-only pool shall be between 30 (76 cm) and 42 inches (106.7 cm) unless a variance in depth is approved by the department. Water depth in the diving well of a combination pool or in a diving pool shall comply with the profiles in Figure 1 and the dimensions in Table 90.08. Water depth at the breakpoint in a combination pool shall be between 4.5 feet (1.37 m) and 5.5 feet (1.68 m).

(2) *BOTTOM SLOPE.* (a) The bottom slope in the shallow portion of a combination pool shall be constant, may not be greater than 1.0 inch per foot (2.54 cm/30.48 cm) and shall slope to the main drain. The bottom slope of the deep portion of a combination pool or diving pool shall comply with the profiles in Figure 1 and the dimensions in Table 90.08 and shall slope to the main drain.

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

(3) *BOUNDARY LINE.* The boundary line between the shallow and deep portions of a combination pool shall be marked with a 4 inch wide stripe of contrasting color on the floor and walls of the pool.

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

(5) *VERTICAL WALL AND FLOOR JUNCTURE.* Walls in the shallow portion of a diving, combination, limited purpose, exercise or swimming pool shall be vertical. Between each wall and the floor there shall be a curved junction having a radius of between one inch (2.54 cm) and 3 inches (7.62 cm).

(6) *HEAD ROOM.* There shall be a completely unobstructed vertical distance of 16 feet (4.88 m) above any diving board measured from the center of the front end of the board. This area shall extend horizontally at least 8 feet (2.44 m) behind, 8 feet (2.44 m)

to each side of, and 16 feet (4.88 m) ahead of the measuring point located 16 feet (4.88 m) above the board.

shall be 6 inches (15.24 cm) in width, with a downward slope of 1/2 inch (1.27 cm) from the wall. All corners shall be rounded.

(7) SAFETY LEDGE. When included, a safety ledge shall be at a constant depth of 30 inches (0.76 m) to 60 inches (1.52 m) and

FIGURE 1
PLAN AND PROFILE FOR
SWIMMING POOL AND DIVING BOARD INSTALLATION

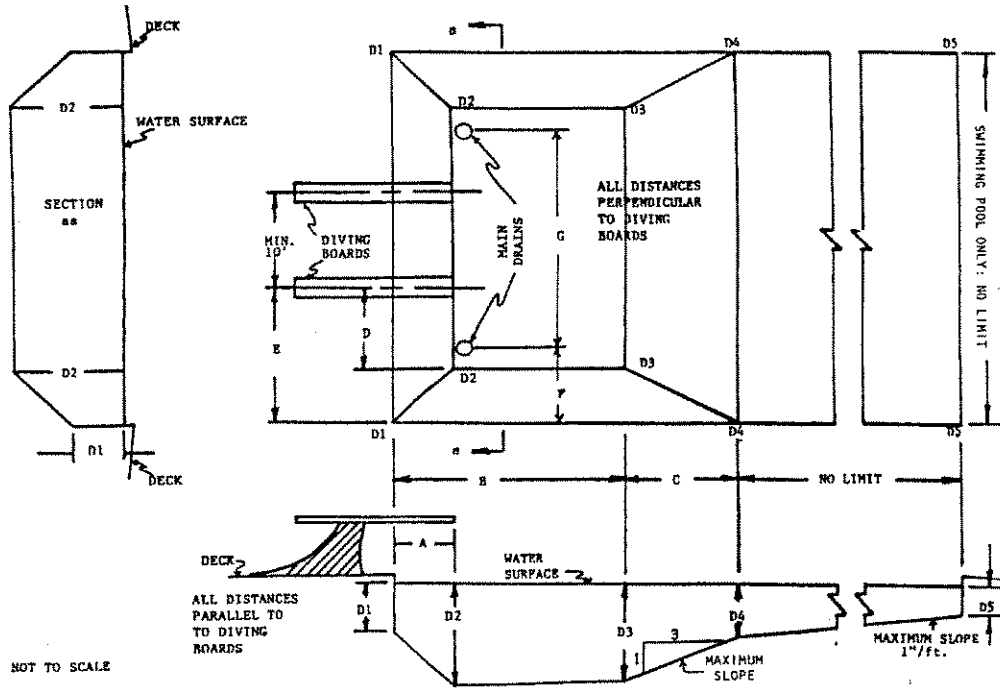


TABLE 90.08: POOL DIMENSIONS
RELATED TO FIGURE 1

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

* When a maximum or a minimum dimension is not indicated, there is no limiting dimension.

** D-1 shall be at the end wall or not more than 6 inches from the wall.

X These measurements are not applicable to pools for swimming only.

Public pools with diving boards more than 3 meters high and pools designed for platform diving shall comply with the dimensional requirements of the national collegiate athletic association or the amateur athletic union as determined by the department.

Convert feet to meters by multiplying the number of feet by 0.3048.

(8) **POOL SHAPE.** (a) *Contour and obstructions.* A swimming pool shall have a shape that does not impair the circulation of pool water and swimmers' safety. Except for a safety ledge, a safety rope, a ladder or access side rails, there shall be no underwater or overhead projections or obstructions that might endanger patron safety or interfere with proper pool operation.

(b) *Bench area.* 1. When a bench area is provided to permit bathers to be seated in the water, it shall be in a recessed area to eliminate any protrusion beyond the pool wall.

2. The length of the bench may not exceed 10 feet; the height of the bench may not exceed 18 inches (46 cm); the depth of the bench seat may not exceed 16 inches (40.6 cm); the depth of the water above the bench seat may not exceed 2 feet (0.61 m).

3. The surface of the bench seat shall be of a color in distinct contrast to the color of the surrounding pool basin.

4. The words "bench area below" shall be placed on the deck at the edge of the pool at the bench area in minimum 6 inch letters of a color in distinct contrast to the deck background.

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

(10) **LADDERS, RECESSED TREADS, RECESSED STAIRS AND HANDRAILS.** (a) *General.* At least 2 points of egress shall be provided from any swimming, diving, limited purpose, exercise, combination or plunge pool. The maximum separation between points of egress, measured along the pool's perimeter, shall be 75 feet (22.86 m).

(b) *Ladders.* At least one ladder, recessed or protruding, shall be placed in the deep portion of the pool and one at or near the end wall of the shallow portion. Ladders shall be made of corrosion-resistant material and treads shall have slip-resistant surfaces.

There shall be a clearance of not more than 6 inches (15 cm) nor less than 3 inches (7.6 cm) between any ladder and the pool wall.

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

(d) *Recessed stairs.* Recessed stairs may be substituted for ladders only at or near the shallow end wall. Recessed stairs shall not extend into the pool basin except that the department may permit stairs to be located in a corner or another location in a pool where the stairs are not an obstruction or hazard to patrons. Stairs shall have a uniform rise of not more than 10 inches (25 cm) and uniform treads of not less than 10 inches (25 cm). Treads shall have a minimum unobstructed surface area of 240 square inches (1548 cm²). All corners shall be rounded to a radius of 1/2 inch. Treads may not project beyond the face of the riser and shall have a slip-resistant surface.

Note: See s. Comm 90.19 (5) for whirlpool stair requirements.

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

Note: See s. Comm 90.19 (5) (d) for whirlpool handrail requirements.

(11) **ELEVATED DECK STAIRWAY, HANDRAILS AND GUARDRAILS.** (a) *Stairway.* The stairway providing access to an elevated deck and the required handrails shall comply with ss. Comm 51.16 and 51.161.

(b) *Guardrails.* Guardrails shall be securely mounted at all open sides of an elevated pool and deck if it is more than 12 inches (30 cm) in height. Guardrail construction and installation shall comply with s. Comm 51.162.

(12) **ACCESS RAMPS.** (a) *Deck access ramp.* Where a ramp is used as an access to an elevated deck, the ramp shall be designed and constructed as required for a barrier-free environment under ch. Comm 69.

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

1. Have a minimum width of 36 inches (0.914 m) measured between handrails;
2. Be no greater than one foot of rise in 10 feet of run;
3. Have at least 5 feet (1.52 m) of level clearance at the bottom end;
4. Have a slip-resistant surface of the same material used for the pool bottom; and

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

(13) **WALL AND BOTTOM FINISH.** The finish for the walls and bottom of the pool shall be made of materials that are inert, reasonably durable, nontoxic to humans and do not produce taste or odor in the water. The finish shall be reasonably smooth, easily cleaned and white or light in color. Wood is not acceptable as an interior surface.

(14) **DEPTH MARKINGS.** Depth markers shall be located along the pool perimeter on the edge of the deck and on the vertical pool wall at or above the water surface at all pools except at wading pools or on the vertical walls of whirlpools. The depth of water shall be plainly marked at maximum and minimum points, at points of change in slope and at equal intermediate intervals of 25 feet (7.6 m) or less. Depth marker numerals on the edge of the deck shall be at least 6 inches (15.24 cm) high. Markers on the vertical wall shall be at least 3 inches (7.62 cm) high. All markers shall be of a color contrasting with the background.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.09 Pool deck and deck equipment.

(1) **AREA.** (a) *General.* There shall be an unobstructed deck at the same level as the top of the pool wall. The deck shall extend completely around the pool. There shall be at least 6 feet (1.8 m) of unobstructed deck between any 2 adjacent pools except that the minimum deck width between a wading pool and any other pool shall be 12 feet (3.7 m). Deck equipment permitted under this chapter is not considered an obstruction.

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

(c) *Limited purpose pools.* Except when the conditions stated in par. (e) 2. apply, the deck for limited purpose pools shall have a minimum width of 6 feet (1.8 m) on at least 2 contiguous sides. The point of entry into the pool shall be on one of those sides. The deck on the other 2 contiguous sides shall be a minimum of 3 feet (0.9 m) wide.

Note: See s. Comm 90.19 (6) for whirlpool deck widths.

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

(e) *Accessibility.* 1. All pools shall be easily accessible by emergency medical rescuers or other rescue personnel and equipment to effectively treat, load and transport victims.

2. Swimmers shall enter the enclosed area around a combination, swimming-only, or exercise pool at a point where the deck

is adjacent to the shallow portion of the pool unless the pool deck width at the entrance is at least 10 feet (3.1 meters). This requirement does not preclude provision of emergency exits at other locations. The deck width at the point of access to the pool from a bathroom or dressing room shall be at least 15 feet (4.6 meters). Area, routing and drainage separation shall be provided between the areas used by patrons and those used by spectators.

(2) **POOL SLIDES.** All playground-type slides which may be installed at swimming pools shall be manufactured in accordance with the standard for swimming pool slides issued by the U.S. consumer product safety commission and shall be labeled to that effect, and shall be installed in accordance with that standard and with the manufacturer's instructions.

Note: The consumer product safety commission's swimming pool slide construction standard is found in 16 CFR Part 1207, Safety Standard for Swimming Pool Slides. This document may be consulted at the offices of the department's bureau of integrated services the secretary of state's office, or the revisor of statutes bureau, or as part of the U.S. Code of Federal Regulations at any public library or college or university library.

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

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

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

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

(5) **DRINKING FOUNTAIN.** One or more drinking fountains installed in accordance with ch. Comm 82 shall be provided in the immediate pool area.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.10 Outdoor pool enclosure. (1) Except as provided in par. (b), an enclosure at least 5 feet (1.5 m) high constructed to make access difficult shall completely surround every outdoor pool and its adjacent deck area. Access shall be through self-closing and latching gates at the shallow end of the pool. Any opening except a controlled access may not exceed 5 inches (12.7 cm) in width or diameter. The enclosure shall be designed, where a bathhouse is provided, so that patron access to the pool shall be through the bathhouse. Controlled openings for maintenance purposes are permitted if they can be locked.

(2) A plunge pool or a wave generating pool does not require a separate enclosure if, along with other water recreation attraction facilities, it is enclosed in an area under the control of an operator providing safety and supervision measures as required in s. HFS 172.05.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.11 Recirculation system for a pool.

(1) **GENERAL.** Each pool shall have a separate recirculation system except that the department may approve the use of a common surge tank. If a room housing the filtration equipment and pool

water heater is provided, it shall be well lighted, well ventilated, well drained, and easily accessible for operation and maintenance of equipment. Provision for complete drainage of the recirculation system shall be made. Any connection to a storm sewer or a sanitary sewer shall be through a positive air-gap.

(2) **OVERFLOW SYSTEMS.** Overflow gutters or skimmers shall be provided on all pools and shall be designed and installed to provide continuous skimming.

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

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

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

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

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

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

(4) **SKIMMERS.** (a) *General.* Skimmers of a type approved by the department may be installed on a pool in lieu of gutters, but only on a pool that has a water surface area no greater than 3,500 square feet (325 m²) unless it is a reverse flow pool in which case it may have a water surface area up to 5,000 square feet (464.5 m²). The minimum skimmer operating level shall be no more than 9 inches (23 cm) below the level of the deck.

(b) *Number, location and quality.* Where skimmers are used, at least one skimmer, built into the pool wall, shall be provided for each 400 square feet (37.2 m²) of water surface or fraction thereof for outdoor pools, for each 500 square feet (46.5 m²) of water surface or fraction thereof for indoor pools except whirlpools and for each 100 square feet (9.3 m²) of water surface or fraction thereof for whirlpools. Skimmers shall be sturdy and shall be constructed of corrosion-resistant materials. The skimmer basket and flow control shall be easily accessible. The access cover shall be securely fastened. Skimmers shall be located to provide constant and effective skimming over the entire surface of the pool.

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

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

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

(5) **CONTINUOUS SKIMMING.** All pools shall be designed to provide continuous skimming. For pools with gutters, makeup water supply equipment shall be provided to automatically maintain continuous skimming. For pools with skimmers, the water level shall be maintained midway between the bottom and the top edges of the skimmer opening.

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

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

(c) *Operation.* For all pools except reverse flow pools, 20 to 25% of the recirculated water shall be drawn through the main drain.

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

(8) **PUMPING EQUIPMENT.** (a) *Recirculation.* The recirculation pump or pumps shall have a capacity that is adequate for circulating the volume of water necessary to provide a complete turnover of diving pool, swimming pool and combination pool water in a 6-hour period. Unless specifically stated elsewhere in this chapter, water turnover rates for other pools shall be approved by the department. Provision shall be made to ensure that the pump does not become air-bound. Where necessary, self-priming pumps shall be installed. The pump or pumps shall be capable of providing the design flow rates at a total dynamic head of 50 feet for all vacuum filters, 70 feet for pressure sand or cartridge filters and 80

feet for pressure diatomaceous earth filters, unless lower or higher heads are shown by the designer to be hydraulically appropriate.

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

(9) **FILTRATION.** (a) *General.* 1. A swimming pool water treatment system shall have one or more filters. Filters shall conform to NSF standards and shall be approved by the department. Filters shall be installed with adequate clearance and facilities for easy and safe filter media inspection, maintenance, disassembly and repair.

Note: The national sanitation foundation's swimming pool equipment standards may be consulted at the department's bureau of integrated services or at the secretary of state's office or the revisor of statutes bureau. Copies may be obtained from the National Sanitation Foundation, NSF Building, P.O. Box 1468, Ann Arbor, Michigan 48106.

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

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

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

- a. Manufacturer's name and address;
- b. Filter model number;
- c. Filter serial number;
- d. Effective filter area in square feet;
- e. Design flow rate in gallons per minute;
- f. Maximum working pressure; and
- g. Date of manufacture.

5. Each valve shall have a permanent identifying label or tag attached to it.

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

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

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

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

(b) *Sand filters - pressure type.* 1. The design filtration rate of rapid-rate sand filters may not exceed 3 gallons per minute per

square foot (0.09 m²) of bed area. With high-rate sand filters the rate may not exceed 15 gallons per minute per square foot (0.09 m²) of bed area.

2. The initial head loss through any filter with a permanent media when operating at the design flow rate may not exceed 3 pounds per square inch (6.5 cm²) or the psi recommended by the filter manufacturer. The head loss shall be the difference between the pressure at the inlet piping and the pressure at the outlet piping or whatever head loss measure is recommended by the manufacturer.

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

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

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

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

7. With sand media the minimum backwash rate may not be less than 15 gallons (56.8 L) per minute per square foot (0.09 m²) of filter bed area or so great as to cause loss of the media.

8. The backwash water from pressure sand filters, except those serving whirlpools, shall be discharged to a storm sewer through a positive air-gap connection or to the ground surface at a point where it will not create a nuisance or health hazard. The backwash water from sand filters serving whirlpools shall be discharged to a sanitary sewer through a positive air-gap connection.

9. Equipment shall be provided for feeding a coagulant into the rapid rate filter influent after backwashing. This equipment shall be capable of applying not less than 2 ounces of coagulant per square foot of filter bed area.

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

1. The design filtration rate of vacuum-type sand filters shall be no more than 15 gallons (56.8 L) per minute per square foot (0.09 m²);

2. Pool water shall be evenly distributed over the entire surface of the filter bed;

3. The filter media shall consist of hard siliceous sand material free of carbonates or other foreign material, with an effective particle size of 0.45 millimeters and a uniformity coefficient of 1.4

maximum. The filter sand bed shall have a minimum depth of 20 inches (50.8 cm). The gravel used to support the filter media shall be rounded, washed material, free of limestone and fine particles, and placed in layers properly graded to prevent intermixing;

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

5. The backwash rate shall be a minimum of 15 gallons (56.8 L) per minute per square foot (0.09 m²) of filter surface;

6. Backwash water shall be discharged to a storm sewer or to ground surface as specified in par. (b) 8.; and

7. All appurtenances and tank construction shall conform to applicable parts of this subsection.

Note: The national sanitation foundation's swimming pool equipment standards may be consulted at the department's bureau of integrated services or at the secretary of state's office or the revisor of statutes bureau. Copies may be obtained from the National Sanitation Foundation, NSF Building, P.O. Box 1468, Ann Arbor, Michigan 48106.

(d) *Diatomaceous earth filters – pressure and vacuum types.*

1. The design filtration rate for pressure or vacuum filters shall be 1 to 1.5 gallons (3.8 to 5.7 L) per minute per square foot (0.09 m²) of effective filter area, with a turnover rate of 6 hours or less.

2. The initial head loss between the filter inlet and discharge openings of a pressure filter, when operating with the required precoat and at the design flow rate, may not exceed 3 pounds per square inch (6.5 cm²).

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

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

b. Elements shall be capable of withstanding a test pressure differential of 20 pounds per square inch in vacuum filters and 75 pounds per square inch in pressure filters.

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

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

b. Feeding equipment capable of continuously applying the filter manufacturer's recommended amount of filter aid shall be provided. An adequately sized positive displacement-type feeder for the addition of filter aid shall be provided for pressure-type filters. A slurry tank, capable of holding a one-day supply of a 5% mix of filter aid slurry shall be provided. The slurry tank shall have an agitator. Vacuum filters shall be equipped in the same way as pressure filters or with a mechanical dry filter aid feeder. Recirculated pool water or water from an acceptable source shall be used to flush the slurry feeder pump head. The flushing system shall be designed to flush the slurry feeder pump head once every 15 minutes for a sufficiently long duration to effectively flush out the pump head.

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

8. Waste water shall be discharged to a sanitary sewer, except that discharge to a storm sewer or the ground surface may be per-

mitted if approved by the department. The connection to the sewer shall be of the positive air-gap type.

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

10. Accessories shall be provided in accordance with par. (a) 7. The vacuum gauge shall be located between the filter and the recirculation pump. A vacuum limit switch interconnected with the recirculation pump controls shall be provided.

(e) *Cartridge filters.* 1. The design filtration rate for cartridge filters of the depth type shall be 3 or fewer gallons per minute (11.4 or fewer liters per minute) per square foot (0.09 m²) of cartridge cylinder surface area. For surface types, the filtration rate shall be no greater than 0.375 gallons (1.42 liters) per minute per square foot (0.09 m²) of the pleated area of the cartridge.

2. The initial head loss through filters may not exceed 3 pounds per square inch (6.5 cm²) at the design flow rate.

3. The filters shall be designed and fabricated in accordance with the applicable portions of par. (a).

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

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

6. A duplicate set of cartridges shall be available for replacement as needed.

7. Cartridge filters may not be used on swimming pools larger than 70,000 gallons.

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

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

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

(d) *Reverse flow pool.* The requirements under pars. (a), (b) and (c) do not preclude the use of a reverse flow pool. For a reverse flow pool, bottom inlets shall be provided as in par. (c). A main drain shall be provided in a reverse flow pool for complete drainage.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.12 Disinfection of pool water. (1) EQUIPMENT. (a) *General.* Equipment shall be provided for continuous disinfection of pool water. For water recreation attraction, an electronic system for the continuous monitoring and feeding of a disinfectant into the recirculation system shall be installed.

Note: See s. HFS 172.09 (1) for disinfectant approval and usage.

Note: Where an electronic monitoring system in connection with the operation of automatic chemical feeding equipment is not required, its installation is strongly recommended.

(b) *Feeders.* Disinfectant feeders shall be approved by the department. These feeders shall be automatic, easily adjustable,

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

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

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

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

1. Manufacturer's name and address;
2. Feeder model and serial number;
3. Maximum output rate;
4. Chemicals recommended;
5. A statement that the use of chemicals other than those recommended may be hazardous; and
6. A statement about whether or not the unit has been evaluated for swimming pools or for spas.

(2) **GAS CHLORINATION.** (a) *Housing.* Where gaseous chlorine equipment is provided, the mechanical proportioning device, scales and cylinders of chlorine shall be housed above grade, in a reasonably gas-tight, corrosion-resistant and mechanically vented room with a door opening outward to the outside. The mechanical exhaust system shall be capable of providing at least one air change per minute and shall consist of an airtight duct beginning not more than 8 inches above the floor and terminating at a safe point of discharge at least 8 feet above the outside surrounding grade. An air duct or louvered intake opening shall be provided to supply fresh air to the chlorine room. The room shall have an observation window at least 18 inches square and shall have artificial lighting. Electrical switches for the control of lighting and ventilation shall be located on the outside of the room.

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

(c) *Gas feeding safety.* 1. The chlorine feeding device shall be designed so that during accidents or interruptions of the flow of the water supply, gas feeding is automatically stopped. The release of chlorine shall be terminated when the recirculation pump is not in operation.

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

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

(3) **DRY CHLORINE COMPOUNDS.** (a) *Solution.* A minimum of 2 solution tanks, one for mixing the chlorine compound with water and the other for collecting and feeding the decanted solution, shall be provided.

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

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.13 Piping for a pool. (1) **SIZE.** The size of pipe, fittings and valves of the complete pool piping system shall be based on flow velocities of 6 feet (1.83 m) or less per second under suction and 8 feet (2.44 m) or less per second under pressure. Gutter drain lines around the pool shall be capable of continuously removing at least 125% of the recirculation water. All wastewater piping shall be sized to freely carry the maximum flows without surcharge or back pressure.

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

(3) **EXPANSION AND CONTRACTION.** The design of the piping system shall permit expansion and contraction as needed.

(4) **FITTINGS.** All pool fittings shall be of corrosion-resistant materials.

(5) **PIPE CODING.** All exposed piping shall be color coded or provided with permanent labels or tags for easy identification.

(6) **HOSEBIBBS.** A hosebibb or hosebibbs shall be provided in the equipment room, the dressing, shower and toilet facility, and at whatever intervals along the deck are necessary to permit adequate cleaning using a maximum of 100 feet (30.5 m) of hose. A hosebibb in the equipment room or dressing, shower and toilet facility may be used for deck cleaning if located so that no more than 100 feet (30.5 m) of hose is needed to reach the entire deck. All hosebibbs served by a potable water supply shall be protected against backsiphonage by proper installation of approved backflow prevention devices.

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

(8) **SEWERS AND SEWER CONNECTIONS.** (a) *Restrictions.* 1. Exposed drain lines may not pass over the pool, a surge tank, an open filter or the deck.

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

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

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.14 Pool water heaters and thermometer.

(1) **INSTALLATION OF HEATERS.** When provided, pool water heaters shall be installed in accordance with s. Comm 84.20 (5) (n).

(2) **THERMOMETER.** A thermometer accurate to within plus or minus 2°F. (1°C.) in the operating range shall be installed in the pool water return piping where it can be easily read.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.15 Lifeguard chair requirements for pools.

Each swimming-only, diving, or combination swimming and diving pool, other than one reserved for training or competitive purposes, that has at least 2000 square feet (186 m²) of water surface shall have at least one elevated lifeguard chair. For pools larger than 2000 square feet (186 m²), one lifeguard chair shall be provided for the first 2000 square feet and an additional chair shall be provided for each additional 2000 square feet. If more than one lifeguard chair is required and the pool width is 45 feet (13.72 m) or more, the lifeguard chairs shall be located on opposite sides of the pool. The chairs shall be in locations that provide a clear, unobstructed view of the pool bottom in the area under surveillance. One chair shall be located near the diving well.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.16 Dressing, shower and toilet facilities at pools.

(1) **GENERAL REQUIREMENTS.** All pools shall be provided with conveniently located dressing, shower and toilet facilities except as stated in sub. (2). All applicable building requirements of chs. ILHR 50 to 54, 63 and 64 apply to the construction of indoor pool housing and bathhouses.

(2) **WAIVER.** The requirements for separate dressing, shower and toilet facilities under this section may be waived when dressing, shower and toilet facilities in motels, hotels, apartment houses or complexes and campgrounds are readily available to pool patrons by paved walkways. A request for a waiver shall be submitted to the department in writing and shall include the specific maximum distances to toilet and shower facilities and the specific number of toilet and shower facilities available to pool patrons. If a waiver is granted, the department may require that a minimum number of toilet and shower facilities for each sex be located near the pool for the convenience of pool patrons.

(3) **LAYOUT.** (a) *General.* Dressing, shower, and toilet facilities to be used simultaneously by both sexes shall be divided into 2 parts designated by sex and separated by a tight opaque wall. Entrances and exits shall be screened to break line of sight. The facilities shall be laid out so that the patrons on leaving the dressing room en route to the pool pass by the toilets and through the showers.

(b) *Floors and drains.* Floors shall be of smooth material that is impervious to water, with a nonslip surface and sloping 1/4 inch (0.64 cm) per foot (0.305 m) toward drains. Junctions between walls and floors shall be coved. Drain openings shall be 1/2 inch (1.27 cm) or less in width or diameter.

(c) *Unroofed areas.* Floor drains in unroofed dressing areas shall be connected to a storm sewer through an air gap or the floor shall slope to the outer perimeter ground surface.

TABLE 90.16
REQUIRED NUMBER OF FIXTURES AT POOLS

Number of Patrons	Number of Toilets		Number of Urinals	Number of Lavatories		Number of Showers	
	Males	Females	Males	Males	Females	Males	Females
1-100	1	2	1	1	1	2	2
101-200	1	3	2	2	2	4	4
201-400	2	4	2	2	2	7	7
401-700	2	4	3	3	3	10	10
700+	3	5	3	3	3	12	12

(d) *Hosebibs.* Hosebibs shall be installed in the dressing, shower and toilet areas as required in s. Comm 90.13 (5).

(e) *Walls and partitions.* Walls and partitions shall be reasonably smooth and made of durable material. A space of 10 to 12 inches (25.4 to 30.5 cm) shall be left between the floor and the bottom of partitions forming compartments within dressing, shower and toilet rooms.

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

(g) *Soap.* A soap dispensing system shall be provided at lavatories and showers. Dispensers shall be made of durable material and shall be solidly mounted. Glass dispensers may not be used.

(h) *Water heaters.* Water heating equipment of adequate capacity to supply water at a temperature between 90°F. (32°C.) and 110°F. (43°C.) to all showers and lavatories shall be provided.

Note: See also ch. ILHR 63, pt. V.

(i) *Ventilation.* All indoor pool areas, bathhouses, dressing rooms, shower rooms and toilet rooms shall be adequately ventilated, either by natural or mechanical means, to eliminate the accumulation of condensate and odor.

Note: See also ch. ILHR 64, pt. III.

(j) *Required number of fixtures.* The required minimum number of toilet, lavatory and shower fixtures at pools shall be based on the permissible patron load determined under s. Comm 90.07 and on a 1:1 ratio of males to females, except that when pool use is limited to one sex, 100% of the required fixtures shall be provided for persons of that sex. The required number of fixtures shall

be as provided in Table 90.16, except that for indoor school pools there shall be one shower for every 3 swimmers in the class with the largest number of students.

Note: Separate toilet facilities should be provided for spectators.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.17 Electrical wiring and lighting.

(1) **GENERAL.** All electrical wiring and equipment shall be installed in compliance with ch. Comm 16.

(2) **LIGHTING.** All pools and adjacent associated paved areas that are intended to be used after daylight hours shall be provided with area lighting. There shall be enough lights of the appropriate design and in the proper locations to illuminate the pool and associated areas in accordance with ch. ILHR 73. Submarine lighting may be used.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.18 Wading pools. (1) **GENERAL.** Wading pools shall be in compliance with the applicable requirements of ss. Comm 90.05 to 90.17 and with this section.

(2) **DESIGN.** (a) *Turnover time.* The maximum turnover time for wading pools shall be 2 hours. In this subsection, "turnover time" means the time required to completely recirculate all the water in a pool.

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

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

2. When skimmers are used, one shall be provided for each 400 square feet (37.16 m²) of surface area or fraction thereof. An overflow gutter may be installed on one or more of the side walls in lieu of skimmers. The gutter shall have an adequate length and capacity which will provide an overflow rate and circulation pattern to assure effective and continuous skimming.

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

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

(d) *Water depth.* The maximum depth of the water may not exceed 24 inches (61 cm). The water depth at the perimeter may not exceed 18 inches (46 cm).

(3) **OBSTRUCTIONS.** Obstructions extending from the walls or the bottom of the wading pool are not permitted except with the approval of the department based on design safety.

(4) **FINISH.** The finish of the walls and bottom of the wading pool shall conform to s. Comm 90.08 (13).

(5) **BOTTOM SLOPE.** The bottom of a wading pool shall slope toward the drains with a minimum slope of 0.25 inches per foot (0.62 cm/0.31 meter) and a maximum slope of 1.0 inch per foot (2.54 cm/0.31 meter).

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.19 Whirlpools. (1) **GENERAL.** The owner or operator of a whirlpool shall comply with this section and the applicable parts of ss. Comm 90.04 to 90.14, 90.16 and 90.17.

(2) **PERIPHERAL STRUCTURE.** (a) *Roofs and ventilation.* The ceiling or canopy over a whirlpool shall be constructed so that moisture or condensation from the ceiling or canopy does not drain into the whirlpool. The whirlpool room shall be adequately ventilated to prevent excessive condensation, as required under s. ILHR 64.05.

(b) *Obstacle and ceiling height.* Pursuant to s. Comm 90.09 (1) (e), there shall be no obstacle or protrusion within a whirlpool or extending from whirlpool room walls or ceiling which would interfere with the use of the whirlpool or make access difficult. The minimum height between the top of the whirlpool rim and the ceiling shall be 6 feet 8 inches (2.0 m), as required under s. Comm 51.164.

(c) *Cleanable walls and ceiling.* The walls and ceiling enclosing a whirlpool shall be constructed of nonabsorbent material that can be easily cleaned. The area of any wall receiving splashed water from the whirlpool shall be waterproof.

(d) *Observation window.* If the whirlpool is located in a separate, enclosed room, an observation window shall be provided to allow the owner or operator a clear observation of the whirlpool area from outside the room.

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

(3) **LOCATION.** A whirlpool located in proximity to a swimming-only pool, combination pool or exercise pool may be located:

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

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

Note: See also sub. (6) (c).

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

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

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

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

(5) **RECESSED STAIRS AND HANDRAILS.** (a) *General.* If a whirlpool is more than 24 inches (61 cm) deep, recessed stairs shall be provided. The stairs do not have to be completely recessed but may not extend into the basin beyond the seat.

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

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

(d) *Stairway handrails.* Handrails shall be securely mounted on each side of a stairs. The leading edge of deck-mounted handrails shall be located within 3 inches (7.62 cm), horizontally measured, from the vertical plane of the bottom riser. The handrails shall be separated by a maximum of 3 feet (0.9 m). The mounted handrails shall not infringe upon the deck width requirement under sub. (6) (a).

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

(6) **DECKS.** (a) *Dimensions.* A continuous, unobstructed deck at least 5 feet wide and at the same level as the top of the pool wall shall be provided around 50% or more of the perimeter of a whirlpool. The deck width at any point of egress from a whirlpool shall be a minimum of 5 feet (1.5 m) as measured in a perpendicular direction of travel from the edge of the deck at the point of egress.

(b) *Drained and cleanable.* All areas of the deck surrounding the whirlpool, including any area between the edge of the whirlpool and a wall, shall be constructed to completely drain and be easily cleaned, pursuant to s. Comm 90.09 (2) and sub. (2) (c). Deck areas around a whirlpool that are one foot or less in width may drain into the pool.

(c) *Deck width between pools.* The deck width between a whirlpool and any other pool shall be at least 6 feet (1.8 m), except when a common wall not more than 18 inches (40.6 cm) wide, designed to prevent someone from standing on it, separates a whirlpool and a swimming pool. A minimum 11 foot (3.4 m) deck width shall be provided between any pool and a whirlpool when the whirlpool is located near the portion of the other pool where the depth is greater than 4.5 feet (1.4 m).

Note: See also sub. (3).

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

(7) **TEMPERATURE REQUIREMENTS.** The maximum water temperature of a whirlpool shall be 104°F (40°C.). Thermostatic controls shall be provided to prevent the water temperature from exceeding this maximum. The controls shall be accessible only to the operator. An accessible and easily readable thermometer, accurate to within plus or minus 2°F (1°C.) in the operating range, shall be installed in the filtered and heated water return line.

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

(b) *Inlets.* Each whirlpool shall have at least 2 filtered water inlets located opposite each other and at least 12 inches (30.5 cm) below the water surface.

Note: See s. Comm 90.11 (10), inlets.

(c) *Main drains.* At least one main drain shall be installed in the bottom of each whirlpool in accordance with s. Comm 90.11 (6). In addition, whirlpool outlet systems shall be designed so that each system provides one or more of the following alternatives in order to prevent entrapment of patrons:

1. Two outlets of equal diameter separated by at least 3 feet (0.9 m) of straight pipe. The system shall be designed so that neither one of the 2 outlets shall be cut out of the suction line by a valve or other means;
2. An antivortex drain cover. The antivortex drain cover may not cause a tripping or stubbing hazard to the feet;
3. A 12-inch-by-12-inch (30.5 cm x 30.5 cm) or larger square grate; or
4. Other approved means that guard against entrapment at the outlet.

(9) CIRCULATION SYSTEMS. (a) *General.* All whirlpools shall be provided with one or more pumps, one or more filters, a disinfection system and equipment of adequate size to recirculate, filter and disinfect the entire volume of whirlpool water within 30 minutes or less and to provide water at the quality level established in ss. HFS 172.09 and 172.10.

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

(c) *Overflow systems.* 1. An overflow system shall be provided for the whirlpool. That system shall be designed and constructed so that the water level in a whirlpool is maintained at the operating level of the overflow rim or weir device of the system.

2. When surface skimmers are used as the sole overflow system, one surface skimmer shall be provided for every 100 square feet (9.3 m²) or fraction thereof, of the whirlpool surface area. When 2 or more skimmers are used, they shall be located to maintain effective skimming action over the entire surface area of the whirlpool.

3. No more than 80% of the required recirculated water flow rate may be drawn through a skimmer or skimmers. The remaining 20% shall be drawn through the bottom drain.

(d) *Filters.* The filters for the whirlpool shall be in compliance with all applicable paragraphs of s. Comm 90.11 (9).

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

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

(g) *Equipment room.* If a room housing the filtration equipment and pool water heater is provided, it shall be large enough to permit easy access to all equipment for both operation and

maintenance. A floor drain shall be installed in the room. Whirlpool equipment rooms shall be adequately ventilated.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.20 Water recreation attractions. (1) *GENERAL.* Water recreation attractions shall be designed and constructed in accordance with sound engineering practice. Design engineers may consult with the department regarding design variations and areas where potential problems may exist. The department may require a water recirculation rate for specific water recreation attractions which is greater than that stated in this chapter. Operators of water recreation attractions shall comply with this section and all other applicable requirements in this chapter.

(2) *WATER SLIDE PLUNGE POOLS.* (a) *General.* A water slide facility shall consist of a plunge pool, one or more flumes, a water storage reservoir, and filtration, disinfection and chemical treatment facilities. The construction of the flume and tower shall be in compliance with ch. Comm 34.

(b) *Definitions.* In this subsection:

1. "Flume" means the elevated chute used as a water slide.
2. "Terminus section" means the last 10 feet (3 m) of the flume discharging into the plunge pool.

(c) *Flume terminus section.* The terminus section of a flume shall be oriented with respect to the plunge pool wall to prevent a slider from crossing into the path of another slider entering the pool from another flume terminus section.

(d) *Clearances.* The distance between the side of a flume terminus section and a plunge pool side wall and the distance between terminus sections shall be at least 5 feet except that the department may accept another separating distance if it is determined to be adequate for the prevention of collision between sliders or sliders and structures. The distance between the exit end of a flume and the opposite side of the plunge pool, excluding steps, shall be at least 20 feet.

(e) *Elevation.* The terminus section of the flume shall slope no more than 1 foot (30.5 cm) in 10 feet (3.0 m) and shall terminate at least 6 inches (15 cm) below the pool water surface, except that the department may permit another flume elevation relative to the pool water level at the entrance into the pool water based on alternative slide and terminus section designs and the velocity of the slider coming out of the terminus section.

(f) *Plunge pool depth.* The water depth in plunge pools at the end of the flume terminus section shall be a minimum of 3 feet and shall be maintained in front of the terminus section for a distance of at least 20 feet, from which the plunge pool floor may have a constant slope upward of not more than 1 foot in 12 feet to a minimum water depth of 2 feet.

(g) *Decks.* 1. A water slide facility shall have a deck along the exit side of the plunge pool which shall be at least 10 feet (3 m) wide. The deck along the remaining sides shall be at least 4 feet (1.22 m) wide, except that a deck is not required along the side where the terminus section of a flume enters the plunge pool.

2. Decks shall have a slip-resistant surface and shall slope to deck drains or to the ground surface away from the pool.

(h) *Stairways.* Stairway steps into the plunge pool shall comply with s. Comm 90.08 (10).

(i) *Walkways.* A 4 foot (1.22 m) minimum width walkway shall be provided between the plunge pool deck and the steps leading to the top of the flume or flumes. Walkways shall be paved, slip-resistant and well-drained.

(j) *Enclosure.* 1. An enclosure shall be installed around the plunge pool, deck and flumes.

2. An uncovered surge tank shall be separately enclosed to prevent access by patrons from the plunge pool area.

3. Enclosures shall comply with s. Comm 90.10.

(k) *Emergency access.* The deck area, stairway, walkway and enclosure of the water slide facility may not in any way restrict or prevent access into the pool area by emergency rescuers.

(L) *Recirculation system.* 1. The entire recirculation system shall be designed to recirculate, filter and disinfect the total volume of water contained in the plunge pool and surge tank at least once every hour and shall be capable of providing water at the quality level established in s. HFS 172.10. The recirculation system shall comply with the applicable subsections of ss. Comm 90.11, 90.12 and 90.13.

2. The water level in a plunge pool shall be maintained at the lip of a gutter or midway between the bottom and top edges of the skimmer opening to ensure continuous skimming.

3. A surge tank shall be installed to receive the overflow water from a plunge pool through the gutter system or over weirs which separate the plunge pool from the surge tank. The surge tank shall have sufficient volume to contain at least 2 minutes of combined flow from all water treatment and flume pumps and enough water to ensure that the plunge pool will be maintained at a constant water depth required for continuous skimming. The water to supply the slide flume or flumes shall be pumped from the surge tank.

4. Where skimmers are used as an outlet from the plunge pool to pool water treatment equipment, a minimum of 2 shall be installed.

Note: See s. Comm 90.11 (4) for requirements for skimmers.

5. Where a gutter overflow system is used, a gutter is not required along a wall between a plunge pool and a surge tank if weirs are provided in the wall to permit overflow from the plunge pool to the surge tank.

6. The surge tank shall be easily accessible for cleaning and maintenance. The surge tank shall be made secure to prevent access by unauthorized personnel.

7. Any opening or connection between the plunge pool and surge tank shall be designed and constructed to prevent entrapment of swimmers.

(m) *Toilet and shower facilities.* A dressing area and toilet and shower facilities shall be provided for each sex. The required number of toilet and shower facilities shall be as provided in Table 90.16 in relation to the permissible patron load determined under s. Comm 90.07, plus one additional patron for each 5 linear feet of walkway leading from the plunge pool area to the slide access stairway, one additional patron for each 3 vertical steps leading to the slide flume entrance and one additional patron for each 20 linear feet of slide flume.

(n) *Other pools used as plunge pools.* Another pool may be used as a plunge pool provided that:

1. It has been constructed in compliance with the applicable parts of ss. Comm 90.05, 90.08, 90.09, 90.11, 90.12, 90.13, 90.15, 90.17 and 90.20;

2. The construction of the flume and tower complies with ch. Comm 34.

3. If water is pumped from a swimming pool to the slide flume, the pump intake is enclosed in a manner to prevent injury or entrapment of swimmers;

4. The amount of water pumped out of the pool does not cause the pool water level to drop below the gutter lip or the skimmer operating level;

5. The pool water overflow system has the capacity to handle any surge of water into the pool after the flume pump is turned off at a time when the permissible patron load is at its maximum;

6. Maximum pool attendance does not exceed the permissible patron load determined under s. Comm 90.07;

7. The portion of a pool used as the plunge area for a water-slide is separated from the remainder of the pool in a manner approved by the department; and

8. The slide structure is isolated by a fence to prevent access to the slide except through a controlled entrance.

(3) *WAVE POOLS.* (a) *General.* The operator of a wave pool shall comply with this subsection and all other requirements of this chapter that apply to the design and construction of wave pools.

(b) *Recirculation rate.* The recirculation system of a wave pool shall be designed to recirculate the total volume of pool water in 2 hours or less.

(c) *Inlets.* Wave pool inlets shall be located in the pool floor no more than 20 feet apart. Inlets shall be located within 15 feet of pool walls.

(d) *Overflow system.* 1. The overflow system for wave pools shall incorporate the use of overflow gutters, trench drains and scupper drains designed to prevent entrapment of swimmers. The total capacity of the gutter, trench, scupper drains and related piping shall be designed to carry 100% of the required recirculation rate. A minimum of 4 scupper drains located at a maximum interval of 25 feet between drains shall be installed in the end wall of the wave pool at the quiescent water level.

2. When the pool bottom has a continuous upward slope from a maximum depth to a zero depth, a trench drain system shall be installed in the floor of the pool to be used as an overflow drain system discharging to the surge tank. The trench drain shall extend entirely along the shallow end of the pool at an elevation equal to the quiescent water level. The pool bottom slope shall be continued beyond the trench drain for a minimum of 15 feet at which point the deck shall slope away from the pool to deck drains or perimeter drainage. The trench drain shall be covered with grating having openings not exceeding 0.375 inches (0.95 cm) in width.

(e) *Entrapment prevention.* Any opening or connection between the wave pool and surge tank or between the wave pool and the wave generating system shall be designed and constructed to prevent entrapment of swimmers.

(f) *Emergency shut-off.* The wave generating system shall be provided with an emergency shut-off control located at each life-guard chair.

(g) *Lifeguard chairs.* A minimum of 4 lifeguard chairs shall be provided. Two chairs shall be located along the deck edge on each side of the wave pool where the water depth is 3 feet or greater.

(h) *Points of egress.* A minimum of 4 points of egress shall be provided and located around the wave pool where the water depth is 3 feet or greater. Ladder installation shall comply with s. Comm 90.08 (10).

(i) *Depth marking.* Depth markings shall be provided as required in s. Comm 90.08 (14) except that markings need not be located at the zero depth portion of the wave pool.

(j) *Safety railing.* A safety railing, or other effective barrier, at least 42 inches in height and with at least one intermediate height rail or rope, shall be installed on the deck along the perimeter of a wave pool to prevent swimmers from entering the pool at any location other than at the zero water depth end.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Comm 90.21 Enforcement. Any person who violates this chapter or any plan or specification included as part of an approval that is issued under this chapter shall be fined not less than \$25 nor more than \$250 for each violation. Each day of continued violation is a separate offense.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

Chapter HFS 172

SAFETY, MAINTENANCE AND OPERATION OF PUBLIC SWIMMING POOLS

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Note: Chapter HSS 172 as it existed on November 30, 1989 was repealed and a new chapter HSS 172 was created effective December 1, 1989. HSS 172 was renumbered Chapter HFS 172 under s. 13.93 (2m) (b) 1, Stats., and corrections made under s. 13.93 (2m) (b) 6, and 7., Stats., Register, January, 1997, No. 493.

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 swimming pools, including whirlpools, in order to protect the health and safety of the public.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; corrections made under s. 13.93 (2m) (b) 7., Stats., Register, January, 1995, No. 469, eff. 2-1-95.

HFS 172.02 Scope. (1) **APPLICABILITY.** This chapter applies to the operator of any public swimming pool.

(2) **APPROVED COMPARABLE COMPLIANCE.** (a) The department may approve an alternative to a method, practice, material, equipment or design required under this chapter that will not be contrary to public health, safety or welfare, when the department is provided with satisfactory proof that the alternative will achieve results which are closely equivalent to the results of literal application of the requirement under this chapter.

(b) An alternative approved under par. (a) may, at the department's discretion, be made conditional for:

1. A defined period of time; or
2. Experimental or trial purposes.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

HFS 172.03 Definitions. In this chapter:

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

(1m) "Agent" means the city, county or village designated by the department under s. 254.69 (2), Stats., and ch. HSS 192 to issue permits to and make investigations or inspections of public swimming pools.

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

(3) "Deck" means the approved, unobstructed walking surface around the pool.

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

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

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

- (a) Lifeguard certification, limited to one of the following:
 1. A current American Red Cross Lifeguard Training certificate;
 2. An American Red Cross Basic Lifeguarding certificate;
 3. A Young Men's Christian Association (YMCA) Lifeguarding certificate;
 4. A National Pool and Waterpark Lifeguard Training (NPWLT) program certificate; or
 5. Other lifeguard certification approved by the department;

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

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

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

1. A current cardiopulmonary resuscitation (CPR) certificate for adult, children and infant skills from the American Red Cross;
2. A current cardiopulmonary resuscitation (CPR) certificate for adult, children and infant skills from the American Heart Association; or
3. Other CPR certification approved by the department.

(7) "Operator" means the owner of a swimming pool or the person responsible to the owner for the operation of the swimming pool.

(8) "Patron" means a user of the pool area.

(9) "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.

(10) "Pool" means a structure, basin, chamber or tank used for wading, swimming, diving, water recreation or therapy.

(11) "Pool area" means, for outdoor pools, the area within the pool enclosure and, for indoor pools, the pool including the required deck area.

(12) "Public swimming pool" means a pool used for one or more purposes described in sub. (10) except a pool serving fewer than 3 residences such as homes or apartments that are used by the owner or persons making the property their primary residence. A public swimming pool includes a pool installed in a "place of employment," as defined in s. 101.01 (2) (f), Stats., or in a "public building," as defined in s. 101.01 (2) (g), Stats., and any pool used on a regular basis by persons other than the residents. A public swimming pool includes but is not limited to a pool serving or installed for the state or any political subdivision of the state; a pool serving or installed at a motel, hotel, tourist rooming house, bed and breakfast establishment, campground, camp, club, association, housing development or school, or a religious, charitable or youth organization; a mobile pool; and a pool at an educational or rehabilitative institution. Included in the meaning of a "public swimming pool" are buildings, equipment and appurtenances, irrespective of whether or not a fee is charged for their use.

(13) "Responsible supervisor" means a person designated by the operator to provide emergency assistance to patrons, maintain order and enforce pool use regulations governing safety and sanitation, including pool closure, and who is knowledgeable about pool maintenance and operation and the testing of pool water.

(14) "Superoxidation" means the addition of an oxidizing product such as chlorine to pool water to raise the level of the oxidizer to a point which will achieve the breakdown of combined chlorine and organic compounds. "Superoxidation" is sometimes referred to as "superchlorination".

(15) "Unauthorized access" means the entrance of a person into a restricted area without permission of the operator or the operator's designated representative.

(16) "Wading pool" means a shallow pool used primarily by children.

(17) "Waterslide plunge pool" means a pool located at the exit end of a waterslide flume and intended and designed to receive sliders emerging from the flume.

(18) "Wave pool" means a pool designed for generating waves for recreational purposes.

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

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; emerg. renum. (1) to be (1m), cr. (1), eff. 7-1-90; renum. (1) to be (1m), cr. (1), Register, November, 1990, No. 419, eff. 12-1-90; r. and recr. (6), renum. (16) to (18) to be (17) to (19), cr. (16), Register, June, 1992, No. 438, eff. 7-1-92; correction in (1m) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 1995, No. 469; **emerg. am. (12), eff. 6-22-96, am. (12), Register, January, 1997, No. 493, eff. 2-1-97.**

HFS 172.04 Permit. (1) APPLICATION. Before opening a public swimming pool for public use, the operator shall obtain a permit from the department or its agent by application made on a form furnished by the department or its agent. An application for a permit submitted to the department shall be accompanied by the fee required under sub. (1m) (a).

Note: To obtain a copy of the application form for a permit to operate a public swimming pool or to determine which agent to contact for an application form, write or phone: Bureau of Public Health, P.O. Box 309, Madison, Wisconsin 53701 (608-266-2835).

(1m) **DEPARTMENT FEES. (a) Annual permit fee.** Beginning July 1, 1996, the operator of a public swimming pool shall pay an annual permit fee of \$110 to the department.

(b) **Penalty fee.** Beginning July 1, 1995, if the annual permit fee is not paid within the first 15 days of the permit renewal period, the department shall require the operator of the public swimming pool to pay a penalty fee of \$50, in addition to the annual permit fee, for renewal of the permit.

(c) **Fee for duplicate permit.** Beginning July 1, 1995, the department shall charge the operator of a public swimming pool \$10 for a duplicate permit.

(2) **PLAN SUBMITTAL.** An operator applying for a permit to operate a public swimming pool shall submit proof with the application that the department under s. ILHR 90.04 (1) has approved plans and specifications for the pool. The department or its agent may not issue a permit if the applicant has not submitted proof of prior approval by the department of plans and specifications for the swimming pool.

(3) **ACTION BY THE DEPARTMENT.** Within 30 days after receiving a completed application for a permit, the department shall either approve the application and issue a permit or deny the application. If the application for a permit is denied, the department shall give the applicant reasons, in writing, for the denial. A permit may not be issued to the operator of a new public swimming pool or to the new operator of an existing public swimming pool without prior inspection of the public swimming pool by the department or its agent to ensure that the public swimming pool complies with this chapter.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; emerg. am. (1), cr. (1m), eff. 9-1-94; am. (1), cr. (1m), Register, January, 1995, No. 469, eff. 2-1-95; correction in (2) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 1995, No. 469; **emerg. am. (1m), eff. 7-1-96; am. (1m), Register, January, 1997, No. 493, eff. 2-1-97.**

HFS 172.05 Supervision and safety. (1) SUPERVISION. Every public pool shall at all times be under the supervision of at least one responsible supervisor.

(2) **LIFEGUARDS AND ATTENDANTS. (a) 1.** Except as provided in pars. (b) and (c), a pool having a surface area of 2,000 square feet or more shall have one or more lifeguards when the pool is in use. The required number of lifeguards shall be as shown in Table 172.05

Table 172.05

Actual Patron Load *	Required Number of Lifeguards		
	Lifeguards for a Pool of 2,000 to 4,999 sq. ft.	Lifeguards for a Pool of 5,000 to 9,999 sq. ft.	Lifeguards for a Pool 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.

2. A pool operator may close a portion of the pool to patrons in order to meet the square foot limits in Table 172.05 for lifeguard staffing, except that lifeguard staffing for a pool of 2,000 to 4,999 square feet shall be maintained.

3. Except as provided in subd. 4., every lifeguard shall hold a current American Red Cross Lifeguard Training certificate, a Young Men's Christian Association (YMCA) Lifeguarding certificate, a National Pool and Waterpark Lifeguard Training (NPWLT) program certificate or other lifeguard certification approved by the department. In addition, every lifeguard shall hold a current certificate for the American Red Cross Community First Aid and Safety Course or other first aid certification approved by the department and a current certificate for the American Red Cross CPR for the Professional Rescuer Course or the American Heart Association BLS Health Care Provider Course or other equivalent cardiopulmonary resuscitation (CPR) certification approved by the department.

4. A lifeguard with approved certification prior to January 1, 1996, may continue to use that certification until it expires. At renewal the certification shall comply with the requirements of subd. 3.

(b) 1. Lifeguards, in a number determined by the department, shall be provided at water recreation attractions. A proposed lifeguard staffing plan for a water recreation attraction shall be submitted, in writing, to the department for approval.

2. An additional lifeguard shall be provided for every 2 waterslide flumes installed at a pool other than a waterslide plunge pool.

3. An attendant responsible for enforcing slide usage rules shall be stationed at the entrance to a waterslide flume.

(c) When a pool is used for instructional purposes, an instructor holding a current American Red Cross Water Safety Instructor (WSI) certificate with training in "Emergency Water Safety" may substitute for a lifeguard required in this subsection until the current certification expires or comes up for renewal or until July 1, 1997, whichever is earliest. WSI certification received after January 1, 1995, with training in "Community Water Safety" does not meet the requirements of this subsection. WSI certification received after January 1, 1996, does not meet the requirements of this subsection.

(3) **LIFEGUARD IDENTIFICATION AND ASSIGNMENT.** Lifeguards shall wear suits that are conspicuously marked "Lifeguard" or are otherwise readily identifiable. Lifeguards assigned to the supervision of the pool may not be assigned duties that distract their attention from observation of persons in the pool area or prevent their immediate assistance to persons in distress.

(4) **SAFETY. (a) General.** Any object or material not specifically approved under this chapter or ch. ILHR 90 which might cause hazardous conditions or interfere with efficient operation of the swimming pool is not permitted in the pool area.

(b) **Rescue equipment. 1.** Each pool, excluding whirlpools and wading pools, shall be provided with a shepherd's crook type pole. In addition, for each lifeguard chair, or when a pool is 30 feet or

more in width and does not have lifeguard chairs, there shall be provided at least one of the following: a ring buoy having a minimum outside diameter of 20 inches, a rescue buoy, a rescue tube or a torpedo buoy. 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. All rescue equipment shall be maintained in good repair.

2. When lifeguards are provided, a rescue tube with harness shall be provided to each lifeguard on duty.

(c) *Location of equipment.* Lifesaving equipment shall be mounted in a conspicuous place and shall be readily accessible.

(d) *First aid equipment.* An approved 24-unit first aid kit and 2 durable blankets shall be available at each pool area. In addition, a spine board shall be available at a pool where a lifeguard is required.

Note: A list of first aid items for the 24-unit kit is available from any regional office of the Department's Division of Health or any agent office.

(e) *Safety rope.* The safety rope required in s. ILHR 90.08 (4) shall remain in place except during a supervised event or activity when the safety rope would become an obstruction.

(f) *Waterslide plunge area separation.* The portion of the pool water surface which is used as a plunge area for a waterslide shall be kept continuously separated in a manner approved by the department as long as the waterslide is in use.

(g) *Playground-type slides.* Where playground-type slides are installed at pool-side, they shall be carefully supervised and properly used.

Note: See s. ILHR 90.09 (2) for swimming pool slide construction and installation requirements.

(h) *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. The department may approve under s. HFS 172.02 (2) an alternate location for a telephone or another system of communication. A current list of emergency numbers shall be attached to or posted near the telephone.

(5) POOL RULES. (a) The operator shall post pool use rules governing safety and sanitation and shall enforce those rules.

(b) A sign showing pool use rules shall be posted in a conspicuous place or places in the pool area and shall be legible.

(c) Except as specified in par. (f), the posted rules shall include at least the following rules:

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; and
5. Do not bring animals into the pool area.

(d) For whirlpools, pool use rules shall be posted in a whirlpool area and shall include, in addition to those in par. (c), the following rules preceded by the word WARNING conspicuously printed:

1. Elderly persons and persons suffering from heart disease, diabetes, or high or low blood pressure should not enter the whirlpool;
2. Children who are unsupervised may not use the whirlpool;
3. Persons under the influence of alcohol or drugs may not use the whirlpool;
4. Pregnant women should consult their physician regarding whirlpool usage; and
5. Lengthy exposure may be hazardous to your health and may result in nausea, dizziness or fainting.

(e) For waterslide plunge pools, pool use rules shall be conspicuously posted at the entrance to the slide tower. The sign shall include at least the following rules in addition to the rules in par. (c):

1. Do not use the slide while under the influence of alcohol or drugs;
2. Follow the instructions of the attendant;
3. No standing, kneeling, rotating or stopping in the flume; and
4. Keep your hands inside the flume.

(f) With the approval of the department the pool rules stated in par. (c) may be eliminated, modified or added to in connection with water recreation attractions, therapy pools or other specialized pools defined in ch. ILHR 90 or this chapter.

(g) A sign showing the maximum allowed pool attendance shall be conspicuously displayed in the pool area. The maximum pool attendance shall be determined as stated in s. ILHR 90.17 or 90.19 (4).

(6) CHEMICALS. (a) *Labeling.* All containers of chemicals used in the operation and maintenance of pools shall be conspicuously labeled with at least the following information:

1. Name of the product;
2. The manufacturer's name and address;
3. Active ingredients;
4. Directions for use;
5. Hazardous ingredient warning; and
6. The U.S. environmental protection agency registration number.

(b) *Storage.* All chemicals shall be stored in the original covered container in a clean, dry, well ventilated and locked area, away from flammables and heat sources. Only authorized personnel shall have access to the storage area. Chemicals may not be stored in chlorine gas storage areas.

(c) *Mixing.* When mixing a chemical solution, mix the chemical in water. Each chemical or chemical solution shall be separately applied. Chemicals may not be combined.

(d) *Smoking.* Smoking shall be prohibited in the chemicals storage area or by anyone who is handling chemicals.

(7) SECURITY. (a) All gates and doors into the pool area shall be maintained and checked for proper operation. They shall be locked when the pool is not in use.

(b) During closed hours, a sign shall be conspicuously posted stating that the pool and deck area are closed.

Note: See s. ILHR 90.10 on the outdoor pool enclosure.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; emerg. r. and recr. (2) (a) 1., r. (2) (b) 1., renum. (2) (a) 2. and (2) (b) 2. to 5. to be (2) (a) 3. and (2) (b) 1. to 4., cr. (2) (a) 2., am. (2) (c), eff. 7-1-90; r. and recr. (2) (a) 1., r. (2) (b) 1., renum. (2) (a) 2. and (2) (b) 2. to 5. to be (2) (a) 3. and (2) (b) 1. to 4., cr. (2) (a) 2., am. (2) (c), Register, November, 1990, No. 419, eff. 12-1-90; am. (2) (a) 3., (c), (4) (d) and (h) and (5) (c) 2., r. (2) (b) 4., Register, June, 1992, No. 438, eff. 7-1-92; corrections made under s. 13.93 (2m) (b) 7., Stats., Register, January, 1995, No. 469; emerg. am. (2) (a) 3., (c), cr. (2) (a) 4., (4) (b) 2., renum. (4) (b) to be (4) (b) 1., eff. 6-22-96; am. (2) (a) 3., (c), cr. (2) (a) 4., (4) (b) 2., renum. (4) (b) to be (4) (b) 1. Register, January, 1997, No. 493, eff. 2-1-97.

HFS 172.06 Food and drink. Glass and shatterable plastic items are prohibited in the pool area. The pool area shall be maintained in a clean and sanitary condition.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; r. and recr. Register, June, 1992, No. 438, eff. 7-1-92.

HFS 172.07 Recirculation system. (1) **GENERAL.** The recirculation system for the pool, consisting of filters, pumps, strainers, screens, disinfectant feeders, slurry or dry feeders and all related components, shall be operated continuously except for seasonal closing or during periods of necessary maintenance.

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

(2) **SKIMMERS, GUTTERS AND MAIN DRAINS.** 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, 75% of the required recirculation flow shall be through the gutter and 25% through the main drain during

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

(3) **INLETS.** 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.

(4) **RECIRCULATION PUMPS.** The recirculation pump or pumps shall continuously achieve the designed pool water recirculation rate except during maintenance operations. The pump manufacturer's maintenance and operating instructions shall be followed.

(5) **PUMP STRAINERS AND SCREENS.** Strainer baskets or screens screens shall be available.

(6) **SURGE TANK.** The surge tank shall be operated within its designed water levels.

(7) **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 or slurry tank unless another approved backflow and backsiphonage prevention device is provided.

(8) **PIPING AND APPURTENANCES.** (a) Flowmeters shall be maintained in accurate operating condition.

(b) Valves and gauges shall be maintained in operating condition.

(c) Filtration system piping shall be provided with permanent labels, numbered tags or a color coding system identifying valves and piping and indicating the direction of water flow. The labels, tags or color coding shall correspond to a conspicuously posted, easily readable chart explaining the number or color system.

(9) **SAND FILTERS.** (a) 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.

(b) 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.

(c) The filter shell and appurtenances shall be maintained in operating condition.

(d) Filter media shall be cleaned or replaced when the initial pressure loss after backwashing exceeds 3 pounds per square inch.

(e) Vacuum sand filters shall be backwashed when the filter sand surface appears dirty. The backwash procedure shall follow the filter manufacturer's written directions which shall be conspicuously posted in the filter area on an easily readable chart. The filter housing, filter components and underdrainage system shall be maintained in good repair.

(10) **DIATOMACEOUS EARTH FILTERS.** (a) 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.

(b) Vacuum-type diatomaceous earth filters shall be backwashed when the vacuum gauge reading increases to greater than 15 inches of mercury or 7 pounds per square inch following pre-coating or as recommended by the manufacturer, whichever is less.

(c) Septums shall be removed and cleaned or replaced when they no longer provide effective filtration or create a friction loss preventing maintenance of the required recirculation rate.

(d) Diatomaceous earth wastewater separation tanks, where installed, shall be maintained.

(e) The filter shell and appurtenances shall be maintained.

(11) **CARTRIDGE FILTERS.** (a) 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, whichever is less.

(b) Cartridges shall be replaced when plugged or damaged. A complete set of replacement cartridges shall be available and used when removing a dirty cartridge from the filter for cleaning.

(12) **BACKWASH AND WASTEWATER.** The wastewater from filter cleaning and backwashing shall be discharged as specified in s. ILHR 90.11 (9) (b), (c), (d) and (e).

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; correction in (12) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 1995, No. 469.

HFS 172.08 Chemical and filter aid feeding. (1) **GENERAL.** All disinfectant and filter aid feeding equipment for a pool shall be maintained so that they operate at the level of output which provides the required residual of disinfectant or solution of filter aid. The manufacturer's recommendations for maintenance shall be followed. The data plate on the feeder shall be accessible and readable. Electrically powered feeders shall be interwired with the recirculating pump electrical circuit.

Note: See s. ILHR 90.12 (1) for design requirements for equipment to disinfect pool water.

(2) **GAS CHLORINATION.** (a) **Storage.** Chlorine cylinders shall be stored indoors in an area having approximately the same air temperature as the room housing the chlorinator and shall be sheltered from a direct source of heat or sunlight. Cylinders shall be in an upright position and shall be chained or strapped to a rigid support. Cylinders may not be moved unless the protection cap is secured over the valve. Empty cylinders shall be tagged to indicate that they are empty and their cylinder valves shall be closed.

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

(b) **Equipment maintenance.** Where chlorine gas is used, all pool equipment operating staff shall be trained in the handling, use and maintenance of chlorinating equipment.

(c) **Safety.** 1. A plastic bottle of ammonium hydroxide or other leak detection method approved by the department shall be available at the chlorine gas storage area.

2. A list of telephone numbers for the appropriate emergency personnel to be contacted in the event of an emergency related to use of chlorine 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.

3. A self-contained breathing apparatus designed for use in a chlorine gas atmosphere shall be provided and stored where it is immediately accessible to personnel who enter the chlorine gas storage room. The facility shall comply with 29 CFR 1910.134 on respiratory protection, including but not limited to the required provision of a written operating procedure governing the selection and use of respirators and the required training of users. The apparatus shall be continuously usable and readily accessible, and replacement parts shall be readily accessible.

Note: Section 29 CFR 1910.34 may be consulted in the offices of the department's bureau of public health, the secretary of state's office or 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.

4. All pool equipment operating staff shall be trained in the use of the self-contained breathing apparatus and shall show evidence of that training.

5. A plan of action for an emergency arising from the usage of chlorine gas shall be written, made known, posted and practiced.

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.

(d) **Repairs.** Only trained personnel may repair gas chlorinators.

(3) **POSITIVE DISPLACEMENT DISINFECTANT FEEDING.** (a) Liquid chemicals shall be fed into pool water circulation piping, 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. Mixing and distribution tanks shall be labeled. A cover with a screened vent shall be provided on all solution 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 or recirculation system.

(b) Positive displacement feeders shall be periodically inspected and maintained in an operational condition.

(c) The feeder suction intake shall be suspended at least 6 inches above any sludge layer in the solution tank.

(d) A small amount of mild acid solution shall be fed through the feeder as needed to dissolve sludge accumulations.

(4) **FLOW-THROUGH FEEDERS.** (a) Flow-through chemical feeders shall be periodically inspected and maintained in operating condition.

(b) The chemical used, the manner of usage and the quantity used in a flow-through feeder shall be as recommended by the feeder manufacturer.

(5) **DIATOMACEOUS EARTH SLURRY FEEDERS.** Positive displacement diatomaceous earth slurry feeders shall be periodically inspected and maintained for proper operation. The lowest effective concentration of solution shall be used in diatomaceous earth slurry feeders. In no case may the concentration exceed 5% by weight. Diatomite slurry feeder head and lines shall be flushed once every 15 minutes for a duration of 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/back-siphonage prevention device. Diatomite slurry tank agitators shall run continuously.

(6) **DRY FEEDERS.** Feeders used for feeding dry chemicals into pool water circulation piping, a surge tank or vacuum filter shall be maintained for proper operation.

(7) **AUTOMATIC FEED CONTROL AND MONITORING SYSTEMS.** Automatic monitoring and feeding systems shall be maintained as recommended by the manufacturer and adjusted as necessary to provide the chemical residuals required in s. HFS 172.09.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; am. (2) (c) 3., Register, June, 1992, No. 438, eff. 7-1-92.

HFS 172.09 Pool water chemistry. (1) DISINFECTION. All pools in use shall be automatically and continuously disinfected by means of equipment that is in compliance with s. ILHR 90.12 and that uses a disinfectant which is approved by the department and meets all of the following requirements:

(a) The disinfectant is registered with the United States environmental protection agency as a disinfectant and the product label is registered with the Wisconsin department of agriculture, trade and consumer protection;

(b) The disinfectant has an effective residual which can be easily and accurately measured by a field test procedure;

(c) The disinfectant is compatible for use with other chemicals normally used in the pool water treatment, or is clearly identified as having a use limitation;

(d) The disinfectant does not impart toxic properties to the water when used according to directions; and

(e) The disinfectant does not create an undue safety hazard when handled, stored and used according to directions.

(2) **CHEMICAL CONCENTRATIONS.** (a) *Chlorine residual.* The free available chlorine residual in pool water shall be a minimum of 1.0 ppm except that in whirlpools the minimum shall be 3.0

ppm and in wading pools, waterslide plunge pools and wave pools the minimum shall be 2.0 ppm. 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.

(b) *Cyanurates.* When cyanuric acid or a chlorinated isocyanurate is used, the free available chlorine in pool water shall be a minimum of 1.5 ppm, except that in wading pools, in waterslide plunge pools and in wave pools the free available chlorine shall be a minimum of 3.0 ppm and in outdoor whirlpools the free available chlorine shall be a minimum of 4.0 ppm. The cyanuric acid concentration in the pool water shall range between 25 and 100 ppm.

(c) *Bromine residual.* The bromine residual in pool water shall be a minimum of 3.0 ppm except that in wading pools the bromine residual shall be a minimum of 4.0 ppm and in whirlpools the bromine residual shall be a minimum of 5.0 ppm. Bromine may not be used in waterslide plunge pools or wave pools unless the department's prior approval is obtained.

(d) *Superchlorination or superoxidation.* When use of a department-approved test kit discloses the presence of combined chlorine (chloramines) in the pool water, the water shall be superchlorinated using a chlorine product as an oxidizer or the water shall be otherwise superoxidized using a nonchlorinated oxidizer such as potassium peroxymonosulfate. Isocyanurates shall not be used for superoxidation. The pool shall be closed to the public during periods of superoxidation when a chlorine product is used.

(e) *pH Control.* The pH of pool water shall be maintained within a range of 7.2 through 7.8.

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

Note: Consideration should be given to the maintenance of balanced water as indicated by a Langelier Index of 0.0 to 0.5. The index may be obtained from a Division of Health regional office or from a county or municipal health department.

(3) **TESTING.** (a) *Test kits.* 1. A test kit approved by the department shall be provided and maintained for testing the pool water pH, the disinfectant residual, the combined chlorine level when chlorine is used, the total alkalinity and, when used, the cyanuric acid concentration. The disinfectant testing reagent shall be diethyl-p-phenylene diamine (DPD) in tablet or liquid form.

2. Test kit reagents shall be stored in their original labeled container and shall be replaced every 6 months or as recommended by the manufacturer.

3. Test kit standard colorimetric comparators used for pool water testing shall be approved by the department and shall provide for accurate comparison in the required range for each test as stated in sub. (2).

(b) *Frequency of testing.* 1. Pool water, except whirlpool water, shall be tested daily before the pool is open to the public and at least one other time during the day's peak bather load for pH and disinfectant residual, at least twice a week for the combined chlorine level when chlorine is used, and at least once a week for total alkalinity and cyanuric acid concentration when cyanuric acid is used.

2. Whirlpool water shall be tested for pH and disinfectant residual at least 4 times daily. At least 2 of these times the testing shall be done when the pool is in use. Whirlpool water shall be tested at least once daily for combined chlorine, when chlorine is used, and at least once a week for total alkalinity.

3. When a properly functioning electronic monitoring device is installed to control pH and disinfectant residual in pool or whirlpool water, testing shall be done at least once a day for pH and disinfectant residual.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; am. (2) (a) to (c), (3) (b) 2., cr. (3) (b) 3., Register, June, 1992, No. 438, eff. 7-1-92; correction in (1)

(intro.) and (a) made under s. 13.93 (2m) (b) 7. and 6., Stats., Register, January, 1995, No. 469.

HFS 172.10 Pool water quality standards. (1) WATER SUPPLY. The water supplied to a swimming pool shall be from a source approved by the department of natural resources under ch. NR 108, 811 or 812.

(2) POOL WATER TEMPERATURE. (a) *Pools except whirlpools.* The water temperature of indoor pools, except whirlpools, shall be between 72°F. (25°C.) and 90°F. (32°C.). The air temperature at an indoor pool shall be at least 72°F. The minimum water temperature for outdoor pools shall be 65°F. (18°C.). An accurate thermometer shall be located in the pool water return line and shall be accessible for observation by the pool operator.

(b) *Whirlpools.* The water temperature of whirlpools may not exceed 104°F. (40°C.).

(3) POOL WATER CLARITY. The water shall have sufficient clarity that the main drain or a black and white disc, 6 inches in diameter, placed at the deepest point of the swimming pool, is readily visible when viewed from the deck.

(4) POOL WATER BACTERIOLOGICAL QUALITY. (a) *Sampling.* Samples of pool water may be collected by the department or its agent for microbiological analysis in evaluating pool water quality. The analysis of water samples shall comply with the procedures established in the 16th 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 Pollution Control Federation.

Note: The 16th edition of *Standard Methods for the Examination of Water and Wastewater* may be consulted at the offices of the Department's Bureau of Public Health, the Secretary of State's office or the Revisor of Statutes office and may be purchased from the American Public Health Association, 1015 18th Street, N.W., Washington, D.C. 20005.

(b) *Bacteriological standards.* 1. When bacteriological analysis is done for coliform organisms, the multiple fermentation tube method, confirmed test, may not show positive for coliform organisms in any one of 5 tubes containing 10 milliliter portions of a water sample, nor shall the membrane filter method show the presence of any coliform organism per 100 milliliters of water sample.

2. When bacteriological analysis is done for the heterotrophic plate count, the total count may not exceed 200 colonies per one milliliter of water sample.

3. When bacteriological analysis is done for staphylococcal organisms, not more than 50 organisms per 100 milliliters of water sample may be present.

(5) ALGAE CONTROL. An algicide may be used in the pool if the algicide complies with s. HFS 172.09 (1) (a) and is used as label directions indicate.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; am. (2) (a) and (4) (b) 2., Register, June, 1992, No. 438, eff. 7-1-92; correction in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, June, 1992, No. 438; correction in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 1995, No. 469.

HFS 172.11 Monthly reports and records. (1) OPERATING REPORTS. The pool operator or responsible supervisor shall complete monthly reports on daily pool operation on forms provided by the department or its agent. The monthly reports shall be submitted to the appropriate departmental regional office or to the department's agent not later than the tenth day of the following month.

Note: To obtain copies of the Department's form for monthly reporting of daily pool operations or to determine which agent to contact to obtain copies, write or phone: Bureau of Public Health, P. O. Box 309, Madison, Wisconsin 53701 (608-266-2835).

(2) FILES. The operator shall maintain on the premises a file containing a copy of each monthly report under sub. (1), each laboratory bacteriological report, and every other report submitted to the department or its agent for the preceding 2-year period; correspondence with the department or its agent for the preceding 2-year period; a copy of the current edition of ch. HFS 172; pool construction plans; the manufacturer's pump performance curve,

manual of instruction on filter operation, and recommendations for operation and maintenance of all equipment; and instructions and other pertinent information on pool operation and maintenance. All of these documents shall be accessible to the operator and the department or its agent.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

HFS 172.12 Maintenance, repair and sanitation. (1) POOL AND POOL AREA. (a) *General.* Every pool bottom and its sides shall be routinely brushed or vacuumed to keep the pool free of sediment, lint, hair, debris, algae and slime growth and discoloration. Cracks or other defects in the pool shall be repaired and the pool interior refinished as necessary to maintain it in a cleanable condition. Pool and deck equipment shall be properly located and installed, and shall be maintained and repaired as necessary.

(b) *Skimmers, gutters and pump strainers.* Skimmers, skimmer weirs and overflow gutters and drains shall be maintained so that they are clean and shall be repaired or replaced as needed. Strainer baskets for skimmers and pump strainers shall be cleaned at least daily.

(c) *Whirlpools and wading pools.* Whirlpools and wading pools shall be cleaned at least once each day. Routine cleaning shall be performed during hours when the pool is closed.

(d) *Deck maintenance and cleaning.* Pool deck areas shall be maintained in good repair and shall be rinsed daily. 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.

(e) *Walls, ceilings and floors.* The walls, ceilings and floors in the pool area shall be repaired and refinished as necessary to maintain them in a cleanable and sanitary condition.

(f) *Hosing.* Adequate lengths of hosing shall be provided and available to flush the entire deck area. All hose bibbs shall be protected against backsiphonage by the proper installation of an approved backflow prevention device.

(g) *Spectator area.* Where a spectator area is provided, it shall be separated by a railing or other barrier from the pool area. The spectator area shall be maintained in a clean condition.

(h) *Drinking fountain.* Each drinking fountain provided under s. ILHR 90.09 (5) shall be maintained in a 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. ILHR 90.16.

(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 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 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 handwashing sinks.*

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

(h) *Where bathing suits or towels or caps are furnished to patrons, they shall be thoroughly laundered using a good detergent and machine dried after each use. The supply of clean suits, towels and caps shall be stored separately from unlaundered articles.*

(3) 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 s. ILHR 64.66 to prevent any excessive condensation problems in indoor enclosures.

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

Note: See ss. ILHR 90.14 and 90.17.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; correction in (1) (h) made under s. 13.93 (2m) (b) 7., Stats., Register, January, 1995, No. 469.

HFS 172.13 Solid waste. All garbage and refuse produced in connection with the operation of a public swimming pool 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.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

HFS 172.14 Pool closing criteria. One or more of the following conditions or situations shall constitute sufficient reason for the operator or responsible supervisor to close a public swimming pool or for the department or its agent under s. HFS 172.15 (2) (b) to order that the swimming pool be closed:

(1) The presence of a hazardous substance or object in the swimming pool or the existence of any condition creating an immediate danger to health or safety;

(2) Failure to comply with the water quality requirements in s. HFS 172.10;

(3) Failure to comply with the disinfectant residual levels established in s. HFS 172.09;

(4) A nonoperational circulation pump, filter, or disinfectant feeder;

(5) Absence of a responsible supervisor or required lifeguard.

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89.

HFS 172.15 Enforcement. (1) **ACCESS.** An authorized employe or agent of the department, upon presenting proper identification, shall be permitted to enter any public swimming pool area, including the recirculation equipment and piping area, at any reasonable time for the purpose of inspecting the pool area and the operation of the pool to determine compliance with this chapter. The department's authorized employe or agent shall be permitted to examine pool records and files.

(2) **ENFORCEMENT POLICY.** (a) **Notification.** If upon inspection of a public swimming pool the authorized employe or agent of the department finds that the pool is not designed, constructed, equipped or operated as required by ch. ILHR 90 and this chapter, the employe or agent shall, except as provided under par. (b), notify the operator in writing and shall specify the changes required to make the pool and its operation conform to the standards established in this chapter and the time period within which compliance shall take place. If the order to correct violations is not

carried out by the expiration of the time period stipulated in the order, or any extension of time granted for compliance, the department may issue an order suspending or revoking the permit to operate the pool. The suspension or revocation order shall take effect 15 days after the date of issuance unless a request for a hearing has been received under sub. (3).

(b) **Order to deal with an immediate danger to health.** Where there is reasonable cause to believe that any construction, sanitary condition, operation or method of operation of the public swimming pool or its equipment creates an immediate danger to health, an authorized employe or agent of the department may, pursuant to s. 254.85, Stats., acting as the designee of the administrator of the department's division of health, and without advanced written notice, issue a temporary order to remove the immediate danger to health. That order shall take effect on delivery to the operator or responsible supervisor. The order shall be limited to prohibiting the continued operation or method of operation of specific equipment, requiring the premises to cease other operations or methods of operations, or a combination of these, except that if a more limited order will not remove the immediate danger to health the order may direct that all operations authorized by the permit shall cease. If before scheduled expiration of the temporary order, the department determines that an immediate danger to health does in fact exist, the temporary order shall remain in effect. The department shall then schedule and hold the hearing required under s. 254.85 (3), Stats., unless the immediate danger to health is removed or the order is not contested and the operator and the department mutually agree that no purpose would be served by a hearing.

Note: Under s. 254.85, Stats., the temporary order is effective for 14 days and may be extended for another 14 days to permit the department to complete its examination. The order expires at the end of the 14-day or 28-day period unless it is terminated by the department by notice to the operator within that period, or is kept in effect beyond that period, pending a hearing, by department notification to the operator. The hearing is to be held by the department no later than 15 days after the notice is served on the operator unless the department and the operator agree on a later date, and the department must issue a final decision on the matter within 10 days after the hearing.

(3) **APPEAL BY THE OPERATOR.** Any operator aggrieved by an order of the department under this chapter, except for an order issued pursuant to s. 254.85, Stats., and sub. (2) (b), may request a hearing under this subsection to challenge the order. A request for a hearing under this subsection shall be submitted to the department of administration's division of hearings and appeals and shall be received by that office within 15 days after issuance of the order. Procedures for the hearing shall be in accordance with ch. 227, Stats. After the hearing, the department shall affirm, set aside or modify the order. The final decision of the department may be appealed to the circuit court as provided in ch. 227, Stats.

Note: The mailing address of the division of hearings and appeals is P.O. Box 7875, Madison, Wisconsin 53707.

(4) **LOCAL ENFORCEMENT.** Notwithstanding subs. (2) and (3), if an agent issues permits directly under this chapter, the agent shall create enforcement and appeal procedures in accordance with ss. 254.69 (2) (g) and 66.124, Stats., which shall supersede subs. (2) and (3).

History: Cr. Register, November, 1989, No. 407, eff. 12-1-89; corrections made under s. 13.93 (2m) (b) 7., Stats., Register, January, 1995, No. 469; correction in (3) made under s. 13.93 (2m) (b) 6., Stats., Register, January, 1997, No. 493.

Clausen, Shayne

From: cambridgehousebandb@juno.com[SMTP:cambridgehousebandb@juno.com]
Sent: Monday, June 29, 1998 1:21 PM
To: Sen.Welch
Subject: Suspending rules regarding hot tubs and pools

The hot tub and pool rules, although designed for public safety, need thorough review by the appropriate state departments to make sure both private businesses (Bed and Breakfasts) and the Wisconsin consumers are protected. Thank you.

Bill and Dotti Krieger, your hosts at the Cambridge House Bed and Breakfast.

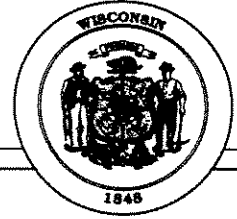
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SHEILA E. HARSDORF
State Representative
Wisconsin's 30th Assembly District

MAY 01 1998



May 1, 1998

Senator Robert Welch, Co-Chair
Joint Committee for Review of Administrative Rules
1 East Main Street, Room 201
Madison, Wisconsin 53707

Representative Glenn Grothman, Co-Chair
Joint Committee for Review of Administrative Rules
125 West, State Capitol
Madison, Wisconsin 53708

Dear Senator Welch and Representative Grothman:

For several months I have been working with the Wisconsin Innkeeper's Association and others to address difficulties with the current licensing of swimming pools and whirlpools at Bed and Breakfast establishments.

Under current Statute, Bed and Breakfasts must comply with COM 90 and HFS 172 of the Administrative Rules. While both Secretary McCoshen and Secretary Leean have expressed a willingness to review and modify these rules as they apply to Bed and Breakfasts which are admittedly unique from other lodging establishments, the summer swimming season is almost upon us and there has yet to be movement with respect to rule modifications.

I am respectfully requesting that the Joint Committee for Review of Administrative Rules suspend the rules outlined below until such time that the rules are sufficiently reviewed and modified by both departments.

Thank you for your consideration of this request. Please feel free to contact me if you have questions or would like to discuss this matter in greater detail.

Sincerely,

SHEILA E. HARSDORF
State Representative
30th Assembly District

SEH:ksp

attch

cc: Secretary Leean, Department of Health and Family Services
Secretary McCoshen, Department of Commerce

MEMBER: JOINT COMMITTEE ON FINANCE

Request that the following subject areas in the current regulations be addressed in a different manner for both licensed Bed and Breakfasts for all pools constructed after January 1, 1990.

1. Location of first aid equipment
2. Acceptance of a manual log in lieu of an automatic timer for filtration equipment
3. Uniform step requirements in both whirlpools and swimming pools
4. Observation window (in a private room)
5. Drinking fountain requirement
6. Telephone location requirement
7. Location of the main drain in whirlpools and swimming pools
8. Continuous operation of circulating systems
9. Whirlpool and swimming pool decks at the same elevation
10. "Hosebibb" (water faucet) requirement
11. Specifications regarding emergency access to pool
12. NSF approved pumps
13. Temperature of circulated water
14. Drain dry whirlpool seats



GOVERNMENT RELATIONS & ASSOCIATION MANAGEMENT

February 18, 1998

MEMORANDUM

TO: All Legislators

FROM: Janet R. Swandby, Lobbyist *Janet*
Wisconsin Innkeepers Association

RE: **Swimming Pool Regulations at Bed & Breakfast Establishments**

The Wisconsin Innkeepers Association (WIA) is extremely concerned with the enforcement by the Department of Health and Family Services and the Department of Commerce regarding the licensing, maintenance and operation of swimming pools and whirlpools at bed and breakfast establishments. As a result of the Departments' reluctance to amend the administrative rules regulating pools and whirlpools in a timely fashion, we are forced to seek relief from the legislature.

Bed and breakfast establishments are unique in nature. Not only do the owners reside in the same structure, but there is a state imposed maximum of eight sleeping rooms and 20 total guests at any time. Furthermore, in most cases, the structure was originally built 50 to well over 100 years ago as a single family residence.

Swimming pools in these establishments were usually installed prior to the transformation from a single family dwelling to a bed & breakfast. They were designed as residential pools. While a few guests may use these pools, it would be difficult to justify the purchase and installation of a commercial pool for guests when most bed and breakfasts rent out only 4-6 rooms when full.

Yet, under current administrative rules, if a person wishes to change their personal residence into a bed and breakfast, they are also faced with meeting many criteria to prepare their pool for public use. This requires installation of an observation window, a drinking fountain, a faucet, a telephone, specific locations for drains, and NSF approved pumps. As a result of the unique nature of bed and breakfast establishments, these regulations are simply not reasonable. Without an exemption from many of these regulations, the continued success of bed and breakfasts throughout Wisconsin is threatened.

While the WIA understands the need to protect the health and safety of the public who use swimming pools and whirlpools, we believe that a proper balance that takes into account the unique nature of bed and breakfast establishments is possible. We look forward to working with you on this issue in order to insure the continued vitality of bed and breakfasts throughout Wisconsin.



June 26, 1998

Serving the
Lodging Industry
for Over 100 Years

MEMO TO: Joint Committee for Review of Administrative Rules

FROM: Trisha A. Pugal, CAE
President, CEO

RE: **Comm 90 and HFS 172 Rule Modification
for Bed & Breakfasts**

The Wisconsin Innkeepers Association, representing over 1100 hotels, motels, resorts, inns, and bed and breakfasts in Wisconsin, respectfully asks the Committee to suspend certain rules pertaining to swimming pools and whirlpools that are currently applicable to licensed bed and breakfasts, until the rules have been sufficiently reviewed and modified by the appropriate State Departments.

The Wisconsin Innkeepers Association, with the assistance of Representative Sheila Harsdorf, has already met with representatives from both the Department of Commerce and the Department of Health and Family Services to explain the special challenges involved with having bed and breakfasts, by law serving a maximum of 20 guests within a maximum of 8 rooms at any one time, trying to comply with regulations created for large public pools serving considerably more guests.

While some of the rules in Comm 90 and HFS 172 should be maintained for general public safety, which we wholeheartedly support, other rules need to be more closely reviewed to determine if they can be adjusted or waived as compliance would impose an unreasonable cost burden on these small businesses, which is not feasible in volume to pass on to the guest.

The DHFS has, within their jurisdiction, approved an internal policy relating to our areas of concern for pools installed prior to January 1, 1990, however, by statute they are unable to do so for pools installed after January 1, 1990.

The Department of Commerce has created an Advisory Council to review Comm 90, however, as this will encompass all portions of the rules and it does not even begin its first meeting until mid-summer, the prime pool months for summer of 1998 are not accommodated.

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While we commend both Departments for their initial efforts in resolving the challenges for bed and breakfast establishments, the fact remains that in the long interim before rules are reviewed, changes are proposed, and changes are approved, bed and breakfasts are forced to either close all guest access to their pools, ignore the law to keep paying guests happy in Wisconsin's short prime season, or invest in costly changes that are not necessary and cannot be financially absorbed.

Please suspend the rules relating to the following for licensed bed and breakfasts with swimming pools and/or whirlpools/hot tubs installed both before January 1, 1990 (for Comm 90) and after January 1, 1990 (for both Comm 90 and HFS 172) until such time as a complete rule review occurs and appropriate changes can be accomplished:

1. Location of first aid equipment
2. Acceptance of a manual log in lieu of an automatic timer for filtration equipment
3. Uniform step requirements in both whirlpools and swimming pools
4. Observation window (in a private room)
5. Drinking fountain requirement
6. Telephone location requirement
7. Location of the main drain in whirlpools and swimming pools *COMM*
8. Continuous operation of circulating systems *COMM*
9. Whirlpool and swimming pool decks at the same elevation *COMM*
10. "Hosebibb" (water faucet) requirement *COMM*
11. Specifications regarding emergency access to pool *COMM*
12. NSF approved pumps *COMM*
13. Temperature of circulated water
14. Drain dry whirlpool seats *COMM*
15. Plan submittal for existing swimming pools and whirlpools provided they comply with DHFS Swimming Pool Policy 5

Thank you for your consideration.

cc: Representative Sheila Harsdorf
WIA Executive Committee
Cheryl Zaug
Scott Smith
Linda Kangas
Barbara Dahl
Janet Swandby
Carol Moeller
Chris Ulmer
Kimberly Seidl



July 10, 1998

JUL 20 1998

The Honorable Sheila E. Harsdorf
State Representative
30th Assembly District
15 North, State Capitol
PO Box 8952
Madison, WI 53708-8952

Dear Representative Harsdorf:

Sheila

Thank you for your interest concerning the public swimming pool rules in Wisconsin. Our Department shares many of your constituent's concerns and is planning to take action in the very near future.

After attending a meeting of the Joint Committee for Review of Administrative Rules, Safety and Buildings Division Administrator Michael Corry is aware of the urgent need for current rule analysis. Plans already exist to hold the first meeting of an advisory pool council on July 21, 1998 in our office in Madison. At this time, representatives from the pool industry, the Innkeepers Association, Wisconsin Apartment Owners Association, Department of Health and Family Services, Wisconsin Municipalities, Wisconsin Schools and Commerce staff will be involved in prioritizing issues and recommending solutions to the department.

If you have questions or would like more information concerning the pool advisory council, please contact Lynita Docken, Program Manager at (608) 785-9349.

Sincerely,


William J. McCoshen
SECRETARY

Cc: Lynita Docken
Sen. Robert Welch
Rep. Glenn Grothman

Wakefield, Les

From: Grothman, Glenn
Sent: Wednesday, August 19, 1998 3:33 PM
To: Christopher, Marc; Clausen, Shayne; Kelly, Steve; Kluz, Paul; Korbitz, Adam; Krifka, Nancy; Milosze, Angela; Peacock, Jonathan; Perrett, Elsie; Rep.Grothman; Rep.Gunderson; Rep.Kreuser; Rep.Seratti; Rep.YoungR; Rindfleisch, Kelly; Schulze, Connie; Sen.Breske; Sen.Darling; Sen.Grobschmidt; Sen.Huelsman; Sen.Welch; Sklansky, Ron; Sumi, John; Tierney, Jodie; Tuschen, Terry; Vance, Vaughn; Villa, Jim; Wakefield, Les; Wiggins, Scott
Subject: Important Notices
Importance: High

Dear Members and Committee Staff:

The co-chairs of the JCRAR wish to schedule a brief meeting (15 minutes or so) for next week Wednesday or Thursday, at 10:00 a.m., to dispense with the extension of an emergency rule. Please contact Steve Krieser of Rep. Grothman's staff by e-mail or by phone if the member will be unable to attend on one, the other, or both of these days.

Additionally, the Joint Committee has received feedback from the Department of Commerce relative to the June 30, 1998 public hearing we held on the Bed and Breakfast pool and whirlpool issue. Please find a copy of that letter in the file attachment below, provided for your reference and your records. Please contact the office of either co-chair with questions.





SAFETY AND BUILDINGS DIVISION
Administrator's Office
P. O. Box 2599
Madison, Wisconsin 53701-2599

Tommy G. Thompson, Governor
William J. McCoshen, Secretary

August 13, 1998

The Honorable Robert Welch
State Senator
P.O. Box 7882
Madison, WI 53707-7882

The Honorable Glenn Grothman
State Representative
Room 125 West, State Capitol
Madison, WI 53702

Dear Senator Welch and Representative Grothman:

The purpose of this report is to inform the Co-Chairs of the Joint Committee for Review of Administrative Rules of the status of the rules on swimming pools and whirlpools in Bed and Breakfast (B&B) establishments. The current code regulates the B&B industry in the same manner as hotels. We propose to establish a subset of regulations for smaller establishments such as the B&B industry.

A number of the proposed changes listed below will cover the entire industry, others just the smaller establishments. Some of the concerns expressed by the B&B industry are issues involving Commerce codes and others that involve the Department of Health and Family Services (DH&FS) codes and operating procedures. As a result, each issue may have a unique method of implementation.

The Department of Commerce, Safety and Buildings Division, initiated the Public Swimming Pool Code Advisory Council on July 21, 1998. The council consists of members representing the pool design industry, Department of Health and Family Services, county health officials, pool contractors and pool owners. The bed and breakfast industry issues, brought to the department's attention by the Innkeeper's Association, are critical and the first order of business for the council. Following are the issues, the discussion points and council's recommendations (in italics) concerning these issues. The discussion of issues involving DH&FS procedures and rules are being addressed by DH&FS staff reporting their position at the advisory committee meeting.

1. **Location of first aid equipment.** The availability of first aid equipment is vital for public pools. The council believes that patrons need access to emergency equipment at all times. Although Comm 90 does not address the location of first aid equipment, DHFS rules, s. HFS 172.07(4)(d), require that "An approved 24-unit first aid kit and 2 durable blankets shall be available at each pool area." *The word "available" may be interpreted by DHFS as being in an adjacent room if the door is clearly marked and remains unlocked during periods of pool operation, only for bed and breakfast installations.*

Page 2

2. **Acceptance of the manual log in lieu of automatic timer for filtration equipment.** Commerce rules (s. Comm 90.12(1)(a)) have criteria for recirculation rates and require that "Equipment shall be provided for continuous disinfection of pool water." S. HFS 172.07(4) requires that "The recirculation pump or pumps shall continuously achieve the designed pool water recirculation rate except during maintenance operations." Disinfection must be continuous to prevent the growth of pathogens. The disinfection is critical for whirlpools because elevated water temperatures promote bacterial growth. *No changes are required in either code, as representatives for the bed and breakfast industry at the council meeting state that the continuous operation of circulation equipment is acceptable.*
3. **Uniform step requirements in both whirlpools and swimming pools.** This construction requirement is located in s. Comm 90.08(10)(d) for swimming pools and in s. Comm 90.19(5)(c) for whirlpools. After discussion the council requested more research of national codes and standards be conducted. *No decision at this time.*
4. **Observation window in private rooms.** Commerce rule s. 90.19(2)(d) states that "If the whirlpool is located in a separate, enclosed room, an observation window shall be provided to allow the owner or operator a clear observation of the whirlpool area from outside the room." *The council recommends that the rule be revised to allow whirlpools in private rooms be exempt from the observation window requirement.*
5. **Drinking fountain requirement.** S. Comm 90.09(5) requires the installation of "one or more drinking fountains . . . in the immediate pool area." The DHFS representative explains that patrons need to re-hydrate when participating in rigorous swimming. *Plans are to revise s. Comm 90.09(5) to exempt bed and breakfasts from the drinking fountain requirement if B&Bs have water available onsite.*
6. **Telephone location requirement.** The location of the required telephone is mandated by s. HFS 172.05(4)(h): "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. The department may approve under s. HFS 172.02(s) an alternate location for a telephone or another system of communication." *The flexibility allowed DHFS, by the "may approve . . . an alternate location" statement, will permit DH&FS to allow an accessible phone near the pool for B&B installations.*
7. **Location of the main drain in (both) whirlpools and swimming pools.** S. Comm 90.08(2) states that both the shallow and deep portions of the pools shall "slope to the main drain" and s. Comm 90.11(6) requires that "at least one recirculating main drain shall be installed in the pool bottom." Whirlpool main drains are addressed in s. Comm 90.19(4)(c) as "The bottom slope of a whirlpool may not exceed 1 inch (2.54 cm) per foot (30 cm) and shall slope to the main drain." *The council's recommendation is to revise the code sections to permit suction outlets to be located within 3 inches of the bottom of the whirlpool or pool and allow the optional installation of the main drain in the bottom of the pool or whirlpool.*

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8. **Whirlpool and swimming pool decks at the same level as the pool.** Two Commerce sections address the level of the deck in relation to the pool. S. Comm 90.09(1)(a) includes "there shall be an unobstructed deck at the same level as the top of the pool wall". S. Comm 90.19(6) contains the requirement for "a continuous, unobstructed deck at least 5 feet wide and at the same level as the top of the pool wall shall be provided around 50% of the perimeter of a whirlpool." *The council reached consensus, advising a code change to allow of a 3-inch maximum height of coping surrounding a whirlpool. No such allowance was made for swimming pools, however, and further step or seat allowances surrounding whirlpools or pools is to be investigated by the council. There will be further discussion of these issues at the next council meeting.*
9. **Hose bibb requirement.** Commerce construction requirements include that "A hosebibb or hosebibbs shall be provided in the equipment room, the dressing, shower and toilet facility and at whatever intervals along the deck are necessary to permit adequate cleaning using a maximum of 100 feet of hose." A hose bibb is a faucet with threads to allow connection of a garden hose. *It was communicated that B&B owners have no problem with the hose bibb requirement.*
10. **Deck width as it relates to emergency access to the pool.** Commerce rules require a minimum 6 foot wide deck around swimming, wading, diving and combination pools and a 5 foot wide deck around 50% of whirlpools. S. Comm 90.09(1) and s. Comm 90.19(6), respectively. *Because the council members suspect that there may be life saving issues involved with the deck requirements, they have asked for additional research in this area. Presently this is a petitionable item.*
11. **NSF approved filters.** S. Comm 90.11(9)(a)1 states, in part, that "Filters shall conform to NSF standards and shall be approved by the department." The language does not require that the filter be listed by NSF or carry the NSF seal, but that the filters "conform" to NSF standards. The department may allow filters that do not carry the NSF seal if the submitter provides documentation that proves the filter conforms to the NSF standards. *No code change is required.*
12. **Temperature of circulated water for whirlpools.** *The issue was not discussed in length, as the representatives from the B&B industry agree to meet this requirement.*
13. **Drain dry whirlpool seats.** *This problem does not exist if the code is revised to allow drains in the sidewall of the whirlpool.*
14. **Plan submittal for existing swimming pools and whirlpools provided they comply with DHFS Swimming Pool Policy #5.** Currently the Department of Health and Family Services requires that an existing pool, constructed after January 1, 1990, obtain plan approval from the Department of Commerce prior to the issuance of a DH&FS operating permit. This causes the owner to hire a professional designer to do an "as-built" set of drawings for the installation and for Commerce to assess the pool design against the current commercial pool code. *The Department of Commerce is investigating options for the conversion of existing private pools to public pools.*

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The Comm 90 rule revisions necessary for the implementation of the swimming pool code advisory council's recommendations are planned to be available for public hearing in the fall of 1998 and, if conditions are favorable, implemented by May, 1999. An extensive swimming pool code is planned to become effective on January 1, 2000.

If you have questions regarding these issues please feel free to call.

Sincerely,



Michael F. Corry
Administrator

cc: Chris Mohman, Commerce
Joseph Leean, DH&FS
Doug Voegeli, DH&FS
Hal Maier, Kubiak Pools



SAFETY AND BUILDINGS DIVISION
 Administrator's Office
 P. O. Box 2599
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August 13, 1998

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Michael F. Corry
Administrator

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Joseph Leean, DH&FS
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Hal Maier, Kubiak Pools