

**WISCONSIN STATUTES  
AND  
ADMINISTRATIVE CODE**

**RELATING TO PUBLIC SWIMMING POOLS**

OCTOBER 2012



State of Wisconsin  
Department of Safety and Professional

Services  
Real Estate Examining Board  
1400 E. Washington Avenue  
PO Box 8935  
Madison WI 53708

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# INTRODUCTION

## PUBLIC SWIMMING POOLS

Safety and Buildings Division staff review plans and specifications for the construction or alteration of public swimming pools. This includes whirlpools, public swimming pools, water recreation attractions and swimming pool equipment. Consultation is also provided.

The development of statutes and rules is ongoing. Therefore, these statutes and rules may be revised subsequent to the printing of this book. Most local libraries maintain current sets of the Wisconsin Statutes. Both statutes and rules are available at Web pages of the Wisconsin Legislature.

All Wisconsin Statutes and Administrative Codes are available on the Internet at the following addresses:

Statutes: <http://www.legis.state.wi.us/rsb/statutes.html>

Rules: <http://www.legis.state.wi.us/rsb/code/codtoc.html>

**Swimming Pool Construction Inspections:** There are two required inspections of public swimming pool construction projects, rough-in and final. Those inspections are done by Department staff in all counties, and by agents in three municipalities. Inspection fees are paid as part of the plan review for inspections done by Department staff, or are paid to the inspection agents when done by the agents.

**Contact the following municipalities for inspections of pools located within their jurisdiction:**

- [City of Madison](#), Department of Public Health, 210 M L King Jr. Blvd., Rm 507, Madison, 608-266-4821
- [City of Milwaukee](#), Department of Neighborhood Services, 4001 S Sixth St, Milwaukee, 414-286-5799

### **Public swimming pools in Wisconsin are affected by federal agency changing the definition of an “unblockable” drain**

The federal Consumer Product Safety Commission (CPSC) has changed the definition of an “unblockable” public swimming pool drain. This definition change affects public pools in Wisconsin having a single drain. Pool owners and the pool industry need to consider the situation.

Under the federal “Virginia Graeme Baker Act” (VGBA), public pools that have a single drain that is not unblockable must install one or more additional devices, such as a Safety Vacuum Relief System (SVRS), automatic pump shut off, gravity drainage system, or suction limiting vent system.

The new definition of the single pool “unblockable” drain means that the sump, in addition to the drain cover, must measure more than 18 by 23 inches and meet certain other criteria.

The new ruling has now been posted on the Federal Register with an October 11, 2011, effective date. See the federal register Web site for the interpretation revocation notice:

<http://www.cpsc.gov/businfo/frnotices/fr12/vgbunblockable.html>.

**Pool Owners in Wisconsin**

- If you have an existing pool that is affected by the CPSC definition change, contact your pool professional for direction on how to meet the requirements.

**Pool Designers in Wisconsin**

- All new pool and "VGBA" plans submitted to the Safety and Buildings Division for review must meet the current CPSC requirements for unblockable drains. Where plans had been reviewed prior to the change in CPSC requirements and the pool has not been inspected yet, if it has a "blockable" drain by the new definition, the inspection will focus on the approved plan. The compliance declaration will include a note that the pool drain now requires a secondary level of protection per the CPSC ruling.

- Existing swimming pools, whirlpools, wading pools, and water attractions that have previously received VGBA compliance declarations must also meet the current CPSC requirements for unblockable drains. If a modification to an existing pool basin and/or sump is necessary to meet the CPSC requirements, a pool modification plan must be submitted for review and approval prior to the modification being made. The modification plan must follow all applicable design requirements.

Additional information, including a list of FAQ's is posted at the Association of Pool and Spa Professionals Web site. <http://www.apsp.org/Public/Home/index.cfm>.

## CHAPTER 145

## PLUMBING AND FIRE PROTECTION SYSTEMS AND SWIMMING POOL PLAN REVIEW

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**Cross-reference:** See also chs. [SPS 305](#), [381](#), [382](#), [383](#), [384](#), [385](#), [386](#), [387](#), and [391](#), Wis. adm. code.

#### 145.01 Definitions. In this chapter:

(1) **AUTOMATIC FIRE SPRINKLER CONTRACTOR.** “Automatic fire sprinkler contractor” means any individual, firm or corporation who has paid the annual license fee and obtained a license to conduct a business in the design, installation, maintenance or repair of automatic fire sprinkler systems.

(2) **AUTOMATIC FIRE SPRINKLER SYSTEM.** “Automatic fire sprinkler system”, for fire protection purposes, means an integrated system of underground and overhead piping designed in accordance with fire protection engineering standards. The system includes a suitable water supply, such as a gravity tank, fire pump, reservoir or pressure tank or connection beginning at the supply side of an approved gate valve located at or near the property line where the pipe or piping system provides water used exclusively for fire protection and related appurtenances and to standpipes connected to automatic sprinkler systems. The portion of the sprinkler system above ground is a network of specially sized or hydraulically designed piping installed in a building, structure or area, generally overhead, and to which sprinklers are connected in a systematic pattern. The system includes a controlling valve and a device for actuating an alarm when the system is in operation. The system is usually activated by heat from a fire and discharges water over the fire area.

(3) **AUTOMATIC FIRE SPRINKLER SYSTEM APPRENTICE.** “Automatic fire sprinkler system apprentice” means any person other than an automatic fire sprinkler system contractor or a journeyman automatic fire sprinkler system fitter who is engaged in learning and assisting in the installation of automatic fire sprinkler systems and who is employed under an apprentice contract under s. [106.01](#).

(3m) **CROSS-CONNECTION CONTROL DEVICE.** “Cross-connection control device” means any mechanical device that automatically prevents backflow from a contaminated source in or into a water supply system.

(3s) **CROSS-CONNECTION CONTROL TESTER.** “Cross-connection control tester” means a person who conducts a performance test of an installed cross-connection control device.

(4) **DEPARTMENT.** “Department” means the department of safety and professional services.

(4m) **FAILING PRIVATE ON-SITE WASTEWATER TREATMENT SYSTEM.** “Failing private on-site wastewater treatment system” has the meaning specified under s. [145.245](#) (4).

(5) **GOVERNMENTAL UNIT RESPONSIBLE FOR REGULATION OF PRIVATE ON-SITE WASTEWATER TREATMENT SYSTEMS.** “Governmental unit responsible for the regulation of private on-site wastewater treatment systems” or “governmental unit”, unless otherwise qualified, means the county except that in a county with a popula-

tion of 500,000 or more these terms mean the city, village or town where the private on-site wastewater treatment system is located.

(6) **JOURNEYMAN AUTOMATIC FIRE SPRINKLER FITTER.** “Journeyman automatic fire sprinkler fitter” means any person other than an automatic fire sprinkler contractor who is engaged in the practical installation of automatic fire sprinkler systems.

(7) **JOURNEYMAN PLUMBER.** “Journeyman plumber” means any person other than a master plumber, who is engaged in the practical installation of plumbing.

(8) **MASTER PLUMBER.** “Master plumber” means any person skilled in the planning, superintending and the practical installation of plumbing and familiar with the laws, rules and regulations governing the same.

(9) **PIPELAYER.** “Pipelayer” means a person registered under s. [145.07](#) (11).

(10) **PLUMBING.** (a) “Plumbing” means:

1. All piping, fixtures, appliances, equipment, devices, and appurtenances in connection with water supply systems, water distribution systems, wastewater drainage systems, reclaimed water systems, and stormwater use systems, including hot water storage tanks, water treatment devices, and water heaters connected with these systems and also includes the installation thereof.

2. The construction, connection, installation, service, or repair of any drain or wastewater piping system that connects to the mains or other terminal within the bounds of, or beneath an area subject to easement for highway purposes, including private on-site wastewater treatment systems and stormwater treatment and dispersal systems, and the alteration of any such systems, drains or wastewater piping.

3. The construction, connection, installation, service, or repair of water service piping that connects to the main or other water utility service terminal within the bounds of, or beneath an area subject to easement for highway purposes and its connections.

4. The water pressure system other than municipal systems as provided in ch. [281](#).

5. A plumbing and drainage system so designed and vent piping so installed as to keep the air within the system in free circulation and movement; to prevent with a margin of safety unequal air pressures of such force as might blow, siphon or affect trap seals, or retard the discharge from plumbing fixtures, or permit sewer air to escape into the building; to prohibit cross-connection, contamination or pollution of the water supply and distribution systems; and to provide an adequate supply of water to properly serve, cleanse and operate all fixtures, equipment, appurtenances and appliances served by the plumbing system.

(br) “Plumbing” does not include any of the following:

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1. A rainwater gutter or downspout down to the point that it discharges into a plumbing system, a subsoil drain, or a foundation drain.

2g. A process water reuse system if the process water reuse system is not connected to any plumbing fixture or appliance.

2m. A stormwater culvert under a roadway or walkway that is placed there only to equalize the water level from one end of the culvert to the other end.

3. The practical installation of process piping within a sewage disposal plant.

**(11) PLUMBING APPRENTICE.** “Plumbing apprentice” means any person other than a journeyman or master plumber who is engaged in learning and assisting in the installation of plumbing and drainage.

**(12) PRIVATE ON-SITE WASTEWATER TREATMENT SYSTEM.** “Private on-site wastewater treatment system” means a sewage treatment and disposal system serving a single structure with a septic tank and soil absorption field located on the same parcel as the structure. This term also means an alternative sewage system approved by the department including a substitute for the septic tank or soil absorption field, a holding tank, a system serving more than one structure or a system located on a different parcel than the structure. A private on-site wastewater treatment system may be owned by the property owner or by a special purpose district.

**(13) REGISTERED LEARNER.** “Registered learner” means a person, other than a restricted plumber licensee, who is learning a limited type of plumbing and is engaged in assisting a restricted plumber licensee.

**(14) RESTRICTED PLUMBER LICENSEE.** “Restricted plumber licensee” means any person licensed as a master plumber (restricted) or a journeyman plumber (restricted) under s. 145.14.

**(15) UTILITY CONTRACTOR.** “Utility contractor” means a person licensed under s. 145.07 (10).

**(17) WATERS OF THE STATE.** “Waters of the state” has the meaning specified under s. 281.01 (18).

**History:** 1971 c. 255; 1977 c. 314; 1979 c. 34, 221; 1981 c. 20; 1983 a. 189, 410, 538; 1991 a. 39; 1993 a. 213, 322; 1995 a. 27 ss. 4355 and 9116 (5); 1995 a. 227; 2009 a. 200, 291; 2011 a. 32, 146.

**145.02 Powers of department.** (1) The construction, installation and maintenance of plumbing in connection with all buildings in this state, including buildings owned by the state or any political subdivision thereof, shall be safe, sanitary and such as to safeguard the public health and the waters of the state.

(2) The department shall have general supervision of all such plumbing and shall after public hearing prescribe and publish and enforce reasonable standards therefor which shall be uniform and of statewide concern so far as practicable. Any employee designated by the department may act for the department in holding such public hearing. To the extent that the historic building code applies to the subject matter of these standards, the standards do not apply to a qualified historic building if the owner elects to be subject to s. 101.121.

(3) The department may exercise such powers as are reasonably necessary to carry out the provisions of this chapter. It may, among other things:

(a) Employ competent supervisors who shall be licensed plumbers, and other assistants, prescribe their qualifications and assign their duties.

(b) Conduct investigations and experiments for the advancement of technical knowledge relating to plumbing and may hold public meetings and attend or be represented at such meetings within or without the state.

(c) Enter and inspect at reasonable hours plumbing installations on private or public property and may disseminate information relative to the provisions of this chapter.

(d) Prepare and cause to be printed such codes, bulletins or other documents as may be necessary and furnish copies thereof to those engaged in the plumbing business and to the public upon request.

(e) Furnish upon request of the owner of the building or of the plumber making the plumbing installation, recommendations or a certificate of inspection.

(f) Issue special orders directing and requiring compliance with the rules and standards of the department promulgated under this chapter whenever, in the judgment of the department, the rules or standards are threatened with violation, are being violated or have been violated. The circuit court for any county where violation of such an order occurs has jurisdiction to enforce and shall enforce any order brought before it by injunctive and other appropriate relief. The attorney general or the district attorney of the county where the violation of the order occurs shall bring action for its enforcement. The department may issue an order under this paragraph to abate a violation of s. 254.59.

(g) By rule, fix fees for the examination and approval of plans of plumbing systems and collect the same.

(h) Promulgate rules concerning the testing of cross-connection control devices, including rules identifying the types of cross-connection control devices that may be tested only by a registered cross-connection control tester and the circumstances under which cross-connection control devices shall be tested.

**(4) (a)** The department shall prescribe rules as to the qualifications, examination and licensing of master and journeyman plumbers and restricted plumber licensees, for the licensing of utility contractors, for the registration of plumbing apprentices and pipe layers and for the registration and training of registered learners. The plumbers council, created under s. 15.407 (16), shall advise the department in formulating the rules.

(b) The department may promulgate rules for the qualification and registration of cross-connection control testers.

**History:** 1971 c. 194; 1973 c. 90; 1975 c. 39; 1977 c. 275, 314; 1979 c. 34, 221; 1981 c. 341; 1983 a. 410; 1993 a. 27, 213, 322; 1995 a. 27; 2011 a. 32.

**Cross-reference:** See also chs. SPS 381, 382, 383, 384, 385, 386, 387, and 391, Wis. adm. code.

Sub. (2) did not invalidate a town ordinance prohibiting residential sewage holding tanks. *Konkel v. Town of Raymond*, 101 Wis. 2d 704, 305 N.W.2d 190 (Ct. App. 1981).

Counties must obtain state approval before permitting private experimental sanitation systems. Citizen committees appointed by the county board may not engage in setting plumbing standards. 60 Atty. Gen. 209.

**145.035 Temporary permits.** The department may issue temporary revocable permits to master and journeyman plumbers pending examination, and for such purpose may appoint agents without compensation or may authorize one of its examiners or plumbing supervisors to hold a special permit examination, the result of which to be reported to the department in writing. The department may make rules and prescribe procedure governing the issuance of such permits.

**History:** 1971 c. 40.

**145.04 Water and sewerage systems.** (1) **ORDINANCE RULES.** A 1st, 2nd or 3rd class city with a water system or sewerage system shall, and a village, 4th class city, town, county or metropolitan sewerage commission may, by ordinance, prescribe rules relating to local permits for the installation, alteration and inspection of plumbing to safeguard the public health.

(2) **NO LOCAL LICENSES.** No city, village, town, town sanitary district, county, metropolitan sewerage district commission or other agency may require the licensing of any person licensed or registered under this chapter or prohibit the person from engaging in or working at business within the scope of the person’s license or permit.

(3) **REPORTS TO DEPARTMENT.** The authorities of any such city or metropolitan sewerage district shall report to the department each failure on the part of a state licensed plumber to qualify as a journeyman or master plumber and each willful violation of any plumbing regulation.

**History:** 1971 c. 194; 1989 a. 56; 1993 a. 482; 1995 a. 378.

**145.045 Certification of soil testers.** (1) **POWERS AND DUTIES.** The department shall by rule establish an examining program for the certification of soil testers, setting such standards as

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the department finds necessary to accomplish the purposes of this chapter. Such standards shall include formal written examinations for all applicants. The department shall charge applicants for the cost of examination and certification. After July 1, 1974, no person may construct soil bore holes or conduct soil percolation tests or other similar tests specified by the department that relate to private on-site wastewater treatment systems unless the person holds a valid certificate issued under this section.

**(2) REVOCATION OF CERTIFICATE.** The department may revoke or suspend the certification of any soil tester but only after a formal hearing for the practice of any fraud or deceit in obtaining the certificate or any gross negligence, incompetence or misconduct in the practice of soil testing.

**(3) PLUMBERS AND SEPTIC TANK INSTALLERS.** A plumber or septic tank installer may also be a soil tester and install any system after approval of the site or project by the department or the governmental unit responsible for the regulation of private on-site wastewater treatment systems.

**History:** 1973 c. 287; 1975 c. 41; 1979 c. 34, 221; 1993 a. 482; 2007 a. 147; 2011 a. 146.

**Cross-reference:** See also s. SPS 305.33, Wis. adm. code.

Soil absorption tests conducted by persons certified under this section must be accepted by county governments. 63 Atty. Gen. 586.

**145.05 Plumbing supervisors, supervision.** **(1)** The common council of a 1st, 2nd or 3rd class city with a water system or sewerage system, or the officer or board in charge, shall appoint one or more plumbing supervisors, who shall be licensed plumbers, and unless under civil service shall serve for a term of 4 years or more subject to removal for just cause except as otherwise provided by ordinance when first appointed, but need not renew their licenses while they continue in office. The common council of a 4th class city, the board of a village, town or county or the commissioner in charge of any metropolitan sewerage district may appoint one or more plumbing supervisors who shall be practical plumbers, skilled sanitarians, or competent persons familiar with plumbing and unless under civil service shall serve for a term of 4 years or more subject to removal for just cause except as otherwise provided by ordinance. They shall supervise all plumbing, new or alterations or repairs, and report to the appointing body violations of regulations, and perform such other appropriate duties as may be required. Their compensation shall be fixed by the council, board or commission.

**(2)** If a water system or sewerage system is established in any city, village, town or metropolitan sewerage district which has not provided for a board or officer to supervise plumbing, drainage and sewerage, the department shall take immediate and entire control of plumbing, drainage and sewerage intended to be connected with the water system or sewerage system, and exercise all the powers conferred by this section until such municipalities or district provides for such supervision.

**History:** 1989 a. 56; 1995 a. 378.

**145.06 License or registration required; exemptions.**

**(1)** (a) No person may engage in or work at plumbing in the state unless licensed to do so by the department. A master plumber may work as a journeyman. No person may act as a plumbing apprentice or pipe layer unless registered with the department.

(b) No public utility shall engage in or perform plumbing unless exempted by sub. (4).

**(2)** No person shall install plumbing unless at all times a licensed master plumber is in charge, who shall be responsible for proper installation. Licenses shall be issued only to individuals and no license shall be issued to or in the name of any firm or corporation. No such license shall be transferable. It is unlawful for any licensed master plumber to allow the use of his or her license, directly or indirectly, for the purpose of obtaining local permits for others or to allow the use of his or her license by others to install plumbing work.

**(3)** Each member or employee of a partnership or limited liability company or each officer or employee of a corporation engaging in the business of superintending plumbing installations

shall be required to apply for and obtain a master plumber's license before engaging in the work of superintending plumbing installations.

**(3m)** No person may test the performance of cross-connection control devices when the test is required by the department unless he or she is registered with the department as a cross-connection control tester.

**(4)** This section shall not apply to:

(a) Plumbing work done by a property owner in a one-family building owned and occupied by him or her as his or her home or farm building, except where such license is required by local ordinance.

(b) Plumbing from the private water supply pump to and including the initial pressure tank and connection to an existing water distribution system, when installed by persons licensed under ch. 280.

(c) Installation of sewer and water service piping from the main to the property lot line, when installed by authorized municipal utility employees or sewer and water utility installers under a contract with a municipality.

(d) Making minor repairs to faucets, valves, pipes or appliances, repair or replacement of electrical or gas energy or other automatic valves or control devices or removing of stoppages in waste or drainage pipes.

(e) Installation of sewer and water mains, when installed by sewer and water utility contractors and their employees.

(f) Installation, repair or replacement of water service piping, from the property line to the meter, including meter installation, to service any building or structure or proposed building or structure when such installation, repair or replacement is accomplished by employees of a public municipal water utility, providing such utility regularly has engaged in such installation, repair or replacement for at least 5 years prior to January 1, 1964.

**History:** 1977 c. 314; 1983 a. 189; 1993 a. 112, 322, 482, 490; 1995 a. 227.

**Cross-reference:** See also ss. SPS 305.90, 305.91, 305.92, 305.93, 305.94, 305.95, 305.96, 305.97, 305.98, and 305.99, Wis. adm. code.

**145.07 Licenses and registration; examinations.**

**(2)** Application for a master or journeyman plumber's examination, temporary permit or license shall be made to the department with fees. Unless the applicant is entitled to a renewal of license, a license shall be issued only after the applicant passes a satisfactory examination showing fitness. No such license or permit shall be transferable.

**(3)** An applicant for examination for licensure as a master plumber shall submit evidence satisfactory to the department as follows:

(a) A specific record of not less than 1,000 hours per year experience for 3 or more years as a licensed journeyman plumber in this state; or

(b) Graduation in engineering from a school or college approved by the department.

**(4)** An applicant for examination for licensure as a journeyman plumber shall submit evidence satisfactory to the department that he or she has completed a plumbing apprenticeship under s. 106.025.

**(5)** Any resident who has been actively engaged in this state in a limited type of plumbing installation work for a period of not less than 1,000 hours per year for 2 or more years as a licensed journeyman plumber (restricted) may be examined for licensure as a master plumber (restricted).

**(6)** Applicants for examination for licensure as a journeyman plumber (restricted) shall have completed one continuous year of work experience consisting of not less than 1,000 hours per year and give evidence of completion of shop training and related instruction as the department by rule requires.

**(7)** A person shall be registered as a registered learner with the department without examination or training prequalifications and shall not be required to be employed under an apprentice contract under s. 106.01.

(9) Master plumbers, journeyman plumbers and apprentices are not subject to the restrictions under s. 145.14.

(10) An application for a utility contractor's license shall be made to the department with fees required by the department under s. 145.08 (1) (o). The department shall issue a utility contractor's license to any person who is skilled in the planning, superintending and practical installation, within public or private premises, of piping which conveys sewage, rain water or other liquid wastes to a legal point of disposal and who is skilled in the design, planning, superintending and practical installation of water service piping from the street main to the immediate inside building perimeter.

(11) An application for registration as a pipelayer shall be made to the department with the fees required by the department under s. 145.08 (1) (q). The department shall approve the registration of any person as a pipelayer if the person is employed by a utility contractor and if the person is engaged in the practical installation, within public or private premises, of piping which conveys sewage, rain water or other liquid wastes to a legal point of disposal or engages in the practical installation of water service piping from the street main to the immediate inside building perimeter.

(12) An applicant for registration as a cross-connection control tester shall submit an application and registration fee to the department as prescribed by the rules promulgated under s. 145.02 (4) (b).

**History:** 1975 c. 39; 1977 c. 314; 1981 c. 60, 314; 1993 a. 213, 322; 1995 a. 286; 2009 a. 291; 2011 a. 146, 257.

#### 145.08 Fees; expiration of license; registration.

(1) The department shall establish fees by rule for the examinations, licenses, and registrations specified in this section. The fees established by the department shall as closely as possible equal the cost of providing the following services:

- (a) Administering a master plumber's examination.
- (b) Issuing a master plumber's license.
- (c) Administering a journeyman plumber's examination.
- (d) Issuing a journeyman plumber's license.
- (e) Issuing a temporary permit pending examination and issuance of a license for master plumber or journeyman plumber.
- (f) Administering a master plumber's (restricted) examination.
- (g) Issuing a master plumber's license (restricted).
- (h) Administering a journeyman plumber's (restricted) examination.
- (i) Issuing a journeyman plumber's license (restricted).
- (k) Administering an automatic fire sprinkler contractor's examination.
- (L) Issuing an automatic fire sprinkler contractor's license.
- (Lm) Issuing an automatic fire sprinkler — maintenance only registration.
- (m) Administering a journeyman automatic fire sprinkler fitter's examination.
- (n) Issuing a journeyman automatic fire sprinkler fitter's license.
- (nm) Issuing an automatic fire sprinkler fitter — maintenance only registration certificate.
- (o) Issuing a utility contractor's license.
- (q) Issuing a pipelayer's registration.

(1g) The department may not charge a plumbing supervisor employed by the department in accord with s. 145.02 (3) (a) a fee for the appropriate 4-year license for which the plumbing supervisor has previously qualified.

(2) No license or registration may be issued for longer than 4 years. Any license or registration may be renewed upon application made prior to the date of expiration. The department may renew licenses or registrations upon application made after the date of expiration if it is satisfied that the applicant has good cause

for not applying for renewal prior to the date of expiration and upon payment of the renewal and additional fees prescribed.

(3) To establish a record of beginning an apprenticeship, as a plumber, as an automatic fire sprinkler system apprentice, or as a plumber learner (restricted), every plumbing and automatic fire sprinkler system apprentice and every plumbing learner (restricted) shall within 30 days after beginning an apprenticeship or learnership register with the department. A fee established by the department by rule shall be paid at the time of registration and before January 1 of each subsequent calendar year during which the apprentice is engaged in the apprenticeship or learnership.

**History:** 1971 c. 255; 1975 c. 39, 199; 1977 c. 314; 1981 c. 20; 1981 c. 60 ss. 6, 11; 1981 c. 314; 1993 a. 16, 322; 1995 a. 417; 2005 a. 25; 2009 a. 28; 2011 a. 146.

**145.09 State comity.** Any person may be accepted for examination for the appropriate classification of license without submitting evidence required under s. 145.07, if:

(1) The person holds a current license under the laws of any other state, or under the ordinances of any city, town or village, having license provisions governing plumbers that the department determines are equivalent to the requirements of this chapter; or

(2) The person has practical experience in plumbing in another state that the department determines is equivalent to the experience required under this chapter.

**History:** 1981 c. 60.

#### 145.10 Investigations, hearings; suspension, revocation.

(1) The department may make investigations and conduct hearings and may, on its own or upon complaint in writing duly signed and verified by the complainant, and after providing not less than 10 days' notice to the licensee, suspend any master or journeyman plumber's license, cross-connection control tester's registration, utility contractor's license or temporary permit if it has reason to believe, and may revoke such license, registration or permit in the manner provided under this section if it finds, that the holder of such license, registration or permit has:

- (a) Made a material misstatement in the application for a license or registration or renewal thereof or for a temporary permit;
- (am) Committed gross negligence or misconduct or is incompetent in the practice covered by the person's license, registration or permit;
- (b) Failed to correct an installation for which he or she is responsible, at his or her own expense, within 30 days following notification by the department of a violation of any rule adopted under this chapter; or
- (c) Falsified information on an inspection form under s. 145.20 (5).

(2) A copy of the complaint with notice of the suspension of license, registration or permit shall be served on the person complained against, and the person's answer to the complaint shall be filed with the department and the complainant within 10 days after service. The department shall thereupon set the matter for hearing as promptly as possible and within 30 days after the date of filing the complaint. Either party may appear at the hearing in person or by attorney or agent. The department shall make its findings and determination within 90 days after the date that the hearing is concluded and send a copy to each interested party.

(3) No order revoking a license, registration or permit shall be made until after a public hearing to be held before the department at such place as the department designates. At least 10 days prior to the hearing the department shall send written notice of the time and place of the hearing to the licensee or permittee and to the person's attorney or agent of record by mailing the notice to the last-known address of such persons. The testimony presented and proceedings had at the hearing shall be recorded and preserved as the records of the department. The department shall as soon thereafter as possible make its findings and determination and send a copy

to each interested party. One year after the date of revocation, application may be made for a new license or registration.

**History:** 1977 c. 314, 418; 1979 c. 34; 1981 c. 1 s. 47; 1981 c. 60; 1983 a. 27, 70; 1991 a. 39; 1993 a. 322; 2005 a. 347.

**145.11 Advertising restrictions. (1)** No person offering plumbing services may do any of the following, unless the person is a licensed master plumber or employs a licensed master plumber:

(a) Advertise as a plumbing contractor, master plumber or plumber.

(b) Append his or her name to, or in connection with, the title “plumbing contractor”, “master plumber” or “plumber”.

(c) Append his or her name to any other title or words that may tend to represent the person as a plumbing contractor, master plumber or plumber.

**(2)** No person other than a licensed master plumber shall use or display the title “Master Plumber” or append his or her name to or in connection with such title or any other title or words which represent or may tend to represent him or her as a licensed master plumber. Every holder of a master plumber’s license shall promptly notify the department of any change of his or her business address.

**(3)** Any person who advertises as a master plumber through the use of printed material designed for public distribution shall include in the advertisement the number of his or her license as a master plumber. Any person who advertises as a plumbing contractor through the use of printed material designed for public distribution shall include in the advertisement the license number of the master plumber employed by the plumbing contractor.

**(4)** Subsection (1) does not apply to any person who advertises as providing services for which no license is required under s. 145.06, unless the person holds himself or herself out as providing services for which a license is required.

**History:** 1983 a. 125; 1993 a. 482.

**145.12 Prohibitions and penalties. (1)** Any person who engages in or follows the business or occupation of, or advertises or holds himself or herself out as or acts temporarily or otherwise as a master plumber, as an automatic fire sprinkler contractor or as a business establishment holding an automatic fire sprinkler–maintenance only registration certificate without first having secured the required license or certificate, or who otherwise violates any provisions of this chapter, shall be fined not less than \$100 nor more than \$500 or imprisoned for 30 days or both. Each day such violation continues shall be a separate offense.

**(2)** Any person violating this chapter or failing to obey a lawful order of the department, or a judgment or decree of a court in connection with this chapter, may be imprisoned for not more than 3 months or fined not more than \$500.

**(3)** Any master plumber who shall employ an apprentice on plumbing representing the apprentice to be a journeyman, or who shall charge for an apprentice a journeyman’s wage, shall be punished by a fine of not more than \$25, or by imprisonment in the county jail for not more than 30 days. Each day of violation shall be a separate offense.

**(4)** Any person who violates any order under s. 145.02 (3) (f) or 145.20 (2) (f) or any rule or standard adopted under s. 145.13 shall forfeit not less than \$10 nor more than \$1,000 for each violation. Each violation of an order under s. 145.02 (3) (f) or 145.20 (2) (f) or a rule or standard under s. 145.13 constitutes a separate offense and each day of continued violation is a separate offense.

**(5)** (a) In lieu of any other penalty under this section, the department may directly assess a forfeiture by issuing an order against any person who violates s. 145.06 or 145.20 (6). The department may not assess a forfeiture exceeding \$2,000 for each violation.

(b) The department shall promulgate rules specifying the procedures governing the assessment of forfeitures under this subsection including the following:

1. The procedure for issuing an order for an alleged violation.

2. The amount of a forfeiture that the department may assess for an alleged violation, subject to the limit under par. (a).

3. The procedure for contesting an order issued for an alleged violation.

4. The procedure for contesting the assessment of a forfeiture for an alleged violation.

(c) The department shall remit all forfeitures paid under this subsection to the secretary of administration for deposit in the school fund.

(d) All forfeitures that are not paid as required under this subsection shall accrue interest at the rate of 12 percent per year.

(e) The attorney general may bring an action in the name of the state to collect any forfeiture imposed, or interest accrued, under this subsection if the forfeiture or interest has not been paid after the exhaustion of all administrative and judicial reviews.

**History:** 1971 c. 255; 1981 c. 20, 60; 1983 a. 410; 1993 a. 482; 1995 a. 225; 2005 a. 182; 2007 a. 197.

**145.13 Adoption of plumbing code.** The state plumbing code and amendments to that code as adopted by the department have the effect of law in the form of standards statewide in application and shall apply to all types of buildings, private or public, rural or urban, including buildings owned by the state or any political subdivision thereof. The state plumbing code shall comply with ch. 160. All plumbing installations shall so far as practicable be made to conform with such code.

**History:** 1971 c. 194; 1983 a. 410; 1993 a. 213.

Wisconsin administrative code ch. Comm 83, Private Onsite Wastewater Treatment Systems, created Register April, 2000, is valid. League of Wisconsin Municipalities v. Department of Commerce, 2002 WI App 137, 256 Wis. 2d 183, 647 N.W.2d 301, 01–1035.

**145.14 Plumbers license (restricted). (1) LIMITATIONS.**

(a) Persons licensed as master plumbers (restricted), journeyman plumbers (restricted) or registered learners shall be classified by the department under sub. (2) and shall be restricted to the type of work for which they have been classified and to the requirements indicated in this section.

(b) Persons licensed as journeyman plumbers (restricted) or registered learners shall work under the supervision of a master plumber or a master plumber (restricted). A master plumber (restricted) may also work as a journeyman plumber (restricted). No journeyman plumber (restricted) or registered learner shall contract for work, advertise or do anything which would lead others to believe him to be qualified as a master plumber (restricted) in his classification.

(c) All persons licensed as master plumbers (restricted), journeyman plumbers (restricted) or registered learners shall be subject to all laws and rules governing plumbers. If qualified, persons may be licensed under any number of classifications under sub. (2). Separate licenses shall be issued under sub. (2) (a) and (b), but licenses issued under sub. (2) (b) may extend to any number of items under that paragraph.

**(2) CLASSIFICATIONS.** The classifications which the department shall use are a sewer services classification and an “appliances, equipment and devices” classification. Persons so classified may engage in the following types of work:

(a) *Systems or services.* Persons classified under this paragraph may install septic tanks for private on-site wastewater treatment systems, may install drain fields designed to serve such septic tanks, and may install sewer service from the septic tank or sewer extensions from mains to the immediate inside or proposed inside foundation wall of the building. Such persons may also install water services, stormwater use systems, and reclaimed water systems if the services or systems are to be located outside the foundation wall of the building.

(b) *Appliances, equipment or devices.* Under this paragraph persons installing a water treatment device, a water heater, or any other item in connection with a water distribution system, including a stormwater use or reclaimed water system, which does not

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require a direct connection to a drain system are limited to making connections to existing installations. There shall be no drilling, tapping, or direct connection made to any waste or drain pipe to serve items installed under this section. The maximum length of water piping permitted to be installed under this section shall be the minimum required to connect the item to the system.

**History:** 2007 a. 147; 2009 a. 200; 2011 a. 146.

**145.15 Licenses. (1)** No city, village, town or county may require the licensing of any person licensed or registered under ss. 145.15 to 145.18 for any activity regulated under ss. 145.15 to 145.18 or rules adopted thereunder.

**(2)** All licenses issued under ss. 145.15 to 145.18 shall be issued by the department. The department shall not restrict the work done by any licensed journeyman sprinkler system fitter of any automatic fire sprinkler contractor or apprentice to any geographical territory.

**(3)** Any person not licensed under this chapter prior to April 26, 1972, who was regularly engaged in the occupation of installing automatic fire sprinkler systems on or before March 1, 1967, shall be licensed under ss. 145.15 to 145.18 without being required to pass any written, oral or practical examination qualifying the person for a license under ss. 145.15 to 145.18. Any such person shall apply for the appropriate license and pay the appropriate license fee.

**(4)** No person may install automatic fire sprinkler systems unless licensed or registered to do so by the department. Licenses and registrations pertaining to automatic fire sprinkler systems are not transferable.

**History:** 1971 c. 255; 1981 c. 20; 1993 a. 482.

**Cross-reference:** See also ss. SPS 305.50, 305.51, and 305.52, Wis. adm. code.

**145.16 Fire sprinkler system apprentices, registration.** Automatic fire sprinkler system apprentices may not be required to apply for any license but shall register with the department as an apprentice. The apprentices shall be enrolled in a qualified apprenticeship sprinkler fitters program recognized by the department.

**History:** 1971 c. 255; 1979 c. 221.

**Cross-reference:** See also s. SPS 305.53, Wis. adm. code.

**145.165 Automatic fire sprinkler fitter–maintenance only registration. (1)** An automatic fire sprinkler fitter–maintenance only registration certificate is required for any person who is employed to maintain automatic fire sprinkler systems by a business establishment registered under s. 145.175. The department shall, by rule, specify the requirements for issuing an automatic fire sprinkler fitter–maintenance only registration certificate and specify the activities in which a person holding a certificate under this section may engage.

**(2)** This section does not apply to any person registered under s. 145.16 or licensed under s. 145.17 (2).

**History:** 1981 c. 20.

**Cross-reference:** See also ss. SPS 305.54 and 305.55, Wis. adm. code.

**145.17 Inspectors and rule making. (1)** The department may employ competent supervisors, who shall be licensed automatic fire sprinkler contractors or journeymen automatic fire sprinkler system fitters, and may employ other persons.

**(2)** The department shall prescribe rules as to the qualifications, examination and licensing of journeymen automatic fire sprinkler system fitters and automatic fire sprinkler contractors and for the registration and training of automatic fire sprinkler system apprentices. The automatic fire sprinkler system contractors and journeymen council, created under s. 15.407 (17), shall advise the department in formulating the rules.

**History:** 1971 c. 255; 1979 c. 102, 221; 1995 a. 27; 2011 a. 32, 146.

**145.175 Automatic fire sprinkler–maintenance only registration.** An automatic fire sprinkler–maintenance only registration certificate is required before any business establishment may maintain or repair existing automatic fire sprinkler systems in its physical facilities. The department shall, by rule, spec-

ify the qualifications for issuing an automatic fire sprinkler–maintenance only registration certificate. The department shall, by rule, specify the activities in which a person holding a registration certificate under this section may engage.

**History:** 1981 c. 20.

**Cross-reference:** See also ss. SPS 305.53, and 305.54, Wis. adm. code.

**145.18 Temporary permits.** The department may issue temporary permits to journeymen automatic fire sprinkler system fitters or to automatic fire sprinkler contractors pending examination of applicants for licenses. The department may also issue temporary permits to applicants for automatic fire sprinkler–maintenance only registration certificates. The department shall, by rule, prescribe the procedure for issuing these permits. Examination fees shall be paid at the time the permit is issued.

**History:** 1971 c. 255; 1981 c. 20.

**145.19 Sanitary permits. (1b) DEFINITION.** In this section, “sanitary permit” means a permit authorizing the installation of a private on–site wastewater treatment system that is issued by the department or any governmental unit responsible for the regulation of private on–site wastewater treatment systems.

**(1g) PERMIT REQUIRED.** No person may purchase or install a private on–site wastewater treatment system unless the owner of the property on which the private on–site wastewater treatment system is to be installed holds a valid sanitary permit issued under this section. No person may sell at retail, as defined under s. 100.201 (1) (d), a septic tank for installation in this state unless the purchaser holds a valid sanitary permit issued under this section.

**(1m) APPLICATION PROCESS.** The department shall prescribe the information to be included in an application for a sanitary permit. The applicant shall submit the completed application for a sanitary permit to the governmental unit. The governmental unit shall approve or disapprove the sanitary permit according to the rules promulgated by the department under this chapter.

**(1r) TEST RESULTS.** The results of any percolation test or other test relating to the disposal of liquid domestic wastes into the soil shall be retained by the governmental unit where the property is located. The governmental unit shall make the test results available to an applicant for a sanitary permit and shall accept the test results as the basis for a sanitary permit application unless the soil at the test site is altered to the extent that a new soil test is necessary.

**(2) FEE.** No fee for a sanitary permit may be less than the amount determined under department rule. The governing body for the governmental unit responsible for the regulation of private on–site wastewater treatment systems may establish a fee for a sanitary permit which is more than the amount determined under department rule. A governmental unit may not charge more than one fee for a sanitary permit or the renewal of a sanitary permit in any 12–month period.

**(3) FEES AND RECORDS OF PERMITS FORWARDED TO THE DEPARTMENT.** The governmental unit responsible for the regulation of private on–site wastewater treatment systems shall forward to the department within 90 days after each valid permit is issued a portion of the fee, as determined under department rule. The governmental unit shall also compile a periodic summary of the permits that it has issued. The summary shall contain the information required by the department by rule, and shall be submitted by the governmental unit to the department at intervals to be determined by the department by rule.

**(3m) NOTICE IN PERMIT.** A sanitary permit shall include a notice displayed conspicuously and separately on the permit form, to inform the permit holder that:

(a) The purpose of the sanitary permit is to allow installation of the private on–site wastewater treatment system described in the permit.

(b) The approval of the sanitary permit is based on regulations in force on the date of approval.

(c) The sanitary permit is valid and may be renewed for a specified period.

(d) Changed regulations will not impair the validity of a sanitary permit.

(e) Renewal of the sanitary permit will be based on regulations in force at the time renewal is sought, and that changed regulations may impede renewal.

(f) The sanitary permit is transferable.

**(4) USE OF FEE.** The portion of this fee retained by the governmental unit responsible for the regulation of private on-site wastewater treatment systems shall be used for the administration of private on-site wastewater treatment system programs.

**(6) GROUNDWATER FEE.** In addition to the fee under sub. (2), the governmental unit responsible for the regulation of private on-site wastewater treatment systems shall collect a groundwater fee of \$25 for each sanitary permit. The governmental unit shall forward this fee to the department together with the fee under sub. (3). The moneys collected under this subsection shall be credited to the environmental fund for environmental management.

**(7) PERIOD OF VALIDITY.** A sanitary permit is valid for 2 years from the date of issue and renewable for similar periods thereafter. A sanitary permit shall remain valid to the end of the established period, notwithstanding any change in the state plumbing code or in any private on-site wastewater treatment system ordinance during that period.

**(8) TRANSFER OF PERMIT.** A sanitary permit may be transferred from the holder to a subsequent owner of the land, except that the subsequent owner must obtain a new copy of the sanitary permit from the issuing agent.

**History:** 1979 c. 34, 221; 1983 a. 27; 1983 a. 189 s. 329 (20); 1983 a. 410; 1987 a. 27; 1989 a. 31; 1997 a. 27; 2011 a. 146 ss. 63 to 65, 68 to 74.

**Cross-reference:** See also s. SPS 302.67, Wis. adm. code.

**145.195 Building on unsewered property.** (1) No county, city, town or village may issue a building permit for construction of any structure requiring connection to a private on-site wastewater treatment system unless a private on-site wastewater treatment system satisfying all applicable regulations already exists to serve the proposed structure or all permits necessary to install a private on-site wastewater treatment system have been obtained.

(2) Before issuing a building permit for construction of any structure on property not served by a municipal sewage treatment plant, the county, city, town or village shall determine that the proposed construction does not interfere with a functioning private on-site wastewater treatment system. The county, city, town or village may require building permit applicants to submit a detailed plan of the owner's existing private on-site wastewater treatment system.

**History:** 1977 c. 258; 1999 a. 150 s. 87; Stats. 1999 s. 145.195; 2007 a. 147; 2011 a. 146.

**NOTE:** Chapter 258, laws of 1977, which created this section, contains a prefatory note.

**Cross-reference:** See also ch. SPS 383, Wis. adm. code.

An onsite inspection of an existing private sewage system must be made before a building permit may be issued for any type of construction requiring a connection to that system. 75 Atty. Gen. 38.

#### **145.20 Private on-site wastewater treatment systems.**

**(1) ORGANIZATION AND PERSONNEL.** (a) The governing body of the governmental unit responsible for the regulation of private on-site wastewater treatment systems may assign the duties of administering the private on-site wastewater treatment system program to any office, department, committee, board, commission, position or employee of that governmental unit.

(am) The governing body of the governmental unit responsible for the regulation of private on-site wastewater treatment systems may delegate the duties of administering the private on-site wastewater treatment system program to a town sanitary district or public inland lake protection and rehabilitation district with the powers of a town sanitary district within the town sanitary district or public inland lake protection and rehabilitation district if the

town sanitary district or public inland lake protection and rehabilitation district agrees to assume those duties.

(b) The governmental unit responsible for the regulation of private on-site wastewater treatment systems shall obtain the services of a certified soil tester, either as an employee or under contract, to review and verify certified soil tester reports under sub. (2).

**(2) GOVERNMENTAL UNIT RESPONSIBILITIES.** The governmental unit responsible for the regulation of private on-site wastewater treatment systems shall:

(a) Review certified soil tester reports for proposed private on-site wastewater treatment systems and verify the report at the proposed site, if necessary.

(b) Approve or disapprove applications for sanitary permits and assist applicants in preparing an approvable application.

(c) Issue written notice to each applicant whose sanitary permit application is disapproved. Each notice shall state the specific reasons for disapproval and amendments to the application, if any, which render the application approvable. Each notice shall also give notice of the applicant's right to appeal and the procedures for conducting an appeal under ch. 68.

(d) Inspect all private on-site wastewater treatment systems after construction but before backfilling no later than the end of the next workday, excluding Saturdays, Sundays and holidays, after receiving notice from the plumber in charge.

(e) File reports and conduct surveys and inspections as required by the governmental unit responsible for the regulation of private on-site wastewater treatment systems or the department.

(f) Investigate violations of the private on-site wastewater treatment system ordinance and s. 254.59 (2), issue orders to abate the violations and submit orders to the district attorney, corporation counsel or attorney general for enforcement.

(g) Perform other duties regarding private on-site wastewater treatment systems as considered appropriate by the governmental unit responsible for the regulation of private on-site wastewater treatment systems or as required by the rules of the department.

(h) Inspect existing private on-site wastewater treatment systems to determine compliance with s. 145.195 if a building or structure is being constructed which requires connection to an existing private on-site wastewater treatment system. The county is not required to conduct an on-site inspection if a building or structure is being constructed which does not require connection to an existing private on-site wastewater treatment system.

(i) Adopt and enforce the maintenance program under sub. (5).

**(3) DEPARTMENT RESPONSIBILITIES.** (a) 1. The department may specify categories of private on-site wastewater treatment systems for which approval by the department is required prior to issuance of sanitary permits by the governmental unit responsible for the regulation of private on-site wastewater treatment systems.

2. The department may exempt a governmental unit from any category of private on-site wastewater treatment systems for which departmental approval is required prior to sanitary permit issuance under subd. 1., upon a determination, in accordance with rules promulgated by the department, that past performance of the governmental unit on reviews and audits under par. (b) has been satisfactory and that the governmental unit has the capacity to give the same level of application and plan review as that provided by the department. The department may revoke an exemption upon a finding that performance of the governmental unit on a review or audit conducted subsequent to the granting of the exemption is unsatisfactory or that the governmental unit is not giving the same level of application and plan review as that provided by the department. Findings in a revocation action may be made only after a public hearing upon 30 days' advance notice to the clerk of the governmental unit. The department shall submit a report under

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s.13.172 (2) to the chief clerk of each house of the legislature, at the beginning of each legislative session, describing the exemptions under this subdivision.

(b) The department shall review the private on-site wastewater treatment system program in each governmental unit responsible for the regulation of private on-site wastewater treatment systems to ascertain compliance with sub. (2) and with regulations issued by the department. This review shall include a random audit of sanitary permits, including verification by on-site inspection.

(c) If the governing body for a governmental unit responsible for the regulation of private on-site wastewater treatment systems does not adopt a private on-site wastewater treatment system ordinance meeting the requirements of s. 59.70 (5) or if the governmental unit does not appoint personnel meeting the requirements of sub. (1) or if the governmental unit does not comply with the requirements of sub. (2) or s. 145.19 (3), the department may conduct hearings in the county seat upon 30 days' notice to the county clerk. As soon as practicable after the public hearing, the department shall issue a written decision regarding compliance with s. 59.70 (5) or 145.19 (3) or sub. (1) or (2). If the department determines that there is a violation of these provisions, the governmental unit may not issue a sanitary permit for the installation of a private on-site wastewater treatment system until the violation is corrected.

(d) The department shall conduct training and informational programs for officials of the governmental unit responsible for the regulation of private on-site wastewater treatment systems and employees and persons licensed under this chapter and s. 281.48 and certified as operators of septage servicing vehicles under s. 281.17 (3) to improve the delivery of service under the private on-site wastewater treatment system program. The department shall obtain the assistance of the Wisconsin counties association in planning and conducting the training and informational programs.

**(4) SPECIAL ASSESSMENT FOR HOLDING AND SEPTIC TANK PUMPING.** A governmental unit may assess the owner of a private on-site wastewater treatment system for costs related to the pumping of a septic or holding tank. The governmental unit shall make any assessment in the same manner that a city, village or town makes an assessment under s. 66.0703.

**(5) MAINTENANCE.** (a) The department shall establish a maintenance program to be administered by governmental units responsible for the regulation of private on-site wastewater treatment systems. The department shall determine the private on-site wastewater treatment systems to which the maintenance program applies. At a minimum the maintenance program is applicable to all new or replacement private on-site wastewater treatment systems constructed in a governmental unit after the date on which the governmental unit adopts this program. The department may apply the maintenance program by rule to private on-site wastewater treatment systems constructed in a governmental unit responsible for the regulation of private on-site wastewater treatment systems on or before the date on which the governmental unit adopts the program. The department shall determine the private on-site wastewater treatment systems to which the maintenance program applies in governmental units that do not meet the conditions for eligibility under s. 145.245 (9).

(am) Each governmental unit responsible for the regulation of private on-site wastewater treatment systems shall adopt and begin the administration of the program established under par. (a) before October 1, 2019. As part of adopting and administering the program, the governmental unit shall conduct and maintain an inventory of all the private on-site wastewater treatment systems located in the governmental unit and shall complete the initial inventory before October 1, 2017. In order to be eligible for grant funding under s. 145.245, a governmental unit must comply with these deadlines.

**NOTE:** Par. (am) is shown as affected by 2011 Wis. Acts 134 and 146 and as merged by the legislative reference bureau under s. 13.92 (2) (i).

(b) The maintenance program shall include a requirement of inspection or pumping of the private on-site wastewater treatment

system at least once every 3 years if the private on-site wastewater treatment system does not have a maintenance plan as prescribed by rule by the department. Inspections may be conducted by a master plumber, journeyman plumber or restricted plumber licensed under this chapter, a person licensed under s. 281.48 or by an employee of the state or governmental unit designated by the department, and the department may determine by rule other persons who are qualified to undertake required inspection, maintenance, or repairs. The department shall specify the methods to establish the required frequency of inspection, maintenance, and pumping for each type of private on-site wastewater treatment system that does not have a maintenance plan and shall periodically update the methods.

(c) The department of natural resources may suspend or revoke a license issued under s. 281.48 or a certificate issued under s. 281.17 (3) to the operator of a septage servicing vehicle if the department of natural resources finds that the licensee or operator falsified information on inspection forms. The department of safety and professional services may suspend or revoke the license of a plumber licensed under this chapter if the department finds that the plumber falsified information on inspection forms.

**(6) RESTRICTIONS ON REVIEWERS AND INSPECTORS.** (a) Except as provided in par. (b), a governmental unit employee who has responsibilities related to any of the activities under sub. (2) (a) (i) may not do any of the following in the county in which the employee is employed or in an adjacent county:

1. Conduct any activities for which certification is required under s. 145.045 (1), except that the employee may review and verify soil tester reports as provided in sub. (2) (a).

2. Install, design, maintain, repair, or sell a private on-site wastewater treatment system, component of a private on-site wastewater treatment system, drain field designed to serve a private on-site wastewater treatment system, or pipe from a private on-site wastewater treatment system to the immediate inside of the existing or proposed foundation wall of the building served by the private on-site wastewater treatment system.

(b) Paragraph (a) does not apply to activities performed by an employee on property owned by the employee that is outside of the governmental unit for which the employee works.

**History:** 1979 c. 34, 221; 1981 c. 120; 1983 a. 192 s. 303 (7); 1983 a. 410; 1987 a. 27, 160; 1989 a. 31; 1993 a. 16, 27; 1995 a. 201, 227; 1999 a. 150 s. 672; 2005 a. 347 ss. 12, 14; 2007 a. 197; 2009 a. 392; 2011 a. 32, 134, 146; s. 13.92 (2) (i).

**Cross-reference:** See also ch. SPS 383, Wis. adm. code.

**NOTE:** 2005 Wis. Act 347, which affected this section, contains extensive explanatory notes.

**145.23 Rules.** The department may make and enforce rules relating to lot size and lot elevation necessary for proper sanitary conditions in the development and maintenance of subdivisions not served by a public sewer, where provision for such service has not been made.

**History:** 1979 c. 221 ss. 607, 649.

**145.24 Variances.** (1) If an existing private on-site wastewater treatment system either is not located in soil meeting the siting standards or is not constructed in accordance with design standards promulgated under s. 145.02 or 145.13, the owner of the private on-site wastewater treatment system may petition the department for a variance to the siting or design standards.

(2) The department shall establish procedures for the review and evaluation of existing private on-site wastewater treatment systems which do not comply with siting or design standards.

(3) Upon receipt of a petition for a variance, the department shall require the owner of the private on-site wastewater treatment system to submit information necessary to evaluate the request for a variance. If the department determines that the existing private on-site wastewater treatment system is not a failing private on-site wastewater treatment system, and continued use of the existing private on-site wastewater treatment system will not pose a threat of contamination of waters of the state, then the department may issue a variance to allow continued use of the

existing private on-site wastewater treatment system. The department shall rescind the variance if the existing private on-site wastewater treatment system becomes a failing private on-site wastewater treatment system or contaminates waters of the state.

**History:** 1983 a. 410; 2011 a. 146.

**145.245 Private on-site wastewater treatment system replacement or rehabilitation. (1) DEFINITIONS.** In this section:

(a) “Determination of failure” means any of the following:

1. A determination that a private on-site wastewater treatment system is failing, according to the criteria under sub. (4), based on an inspection of the private on-site wastewater treatment system by an employee of the state or a governmental unit who is certified to inspect private on-site wastewater treatment systems by the department.

2. A written enforcement order issued under s. 145.02 (3) (f), 145.20 (2) (f) or 281.19 (2).

3. A written enforcement order issued under s. 254.59 (1) by a governmental unit.

(ae) “Governmental unit” means a governmental unit responsible for the regulation of private on-site wastewater treatment systems. “Governmental unit” also includes a federally recognized American Indian tribe or band.

(am) “Indian lands” means lands owned by the United States and held for the use or benefit of Indian tribes or bands or individual Indians and lands within the boundaries of a federally recognized reservation that are owned by Indian tribes or bands or individual Indians.

(b) “Participating governmental unit” means a governmental unit which applies to the department for financial assistance under sub. (8) and which meets the conditions specified under sub. (9).

(c) “Principal residence” means a residence which is occupied at least 51% of the year by the owner.

(dm) “Sewage” means the water-carried wastes created in and to be conducted away from residences, industrial establishments, and public buildings as defined in s. 101.01 (12), with such surface water or groundwater as may be present.

(e) “Small commercial establishment” means a commercial establishment or business place with a maximum daily waste water flow rate of less than 5,000 gallons per day.

**(4) FAILING PRIVATE ON-SITE WASTEWATER TREATMENT SYSTEMS.** The department shall establish criteria for determining if a private on-site wastewater treatment system is a failing private on-site wastewater treatment system. A failing private on-site wastewater treatment system is one which causes or results in any of the following conditions:

(a) The discharge of sewage into surface water or groundwater.

(b) The introduction of sewage into zones of saturation which adversely affects the operation of a private on-site wastewater treatment system.

(c) The discharge of sewage to a drain tile or into zones of bedrock.

(d) The discharge of sewage to the surface of the ground.

(e) The failure to accept sewage discharges and back up of sewage into the structure served by the private on-site wastewater treatment system.

**(4m) CATEGORIES OF FAILING PRIVATE ON-SITE WASTEWATER TREATMENT SYSTEMS.** For the purposes of this section, the department shall establish the category of each failing private on-site wastewater treatment system for which a grant application is submitted, as follows:

(a) Category 1: failing private on-site wastewater treatment systems described in sub. (4) (a) to (c).

(b) Category 2: failing private on-site wastewater treatment systems described in sub. (4) (d).

(c) Category 3: failing private on-site wastewater treatment systems described in sub. (4) (e).

**(5) ELIGIBILITY.** (a) 1. A person is eligible for grant funds under this section if he or she owns a principal residence which is served by a category 1 or 2 failing private on-site wastewater treatment system, if the private on-site wastewater treatment system was installed before July 1, 1978, if the family income of the person does not exceed the income limitations under par. (c), if the amount of the grant determined under sub. (7) is at least \$100, if the residence is not located in an area served by a sewer and if determination of failure is made prior to the rehabilitation or replacement of the failing private on-site wastewater treatment system.

2. A business is eligible for grant funds under this section if it owns a small commercial establishment which is served by a category 1 or 2 failing private on-site wastewater treatment system, if the private on-site wastewater treatment system was installed before July 1, 1978, if the gross revenue of the business does not exceed the limitation under par. (d), if the small commercial establishment is not located in an area served by a sewer and if a determination of failure is made prior to the rehabilitation or replacement of the private on-site wastewater treatment system.

3. A person who owns a principal residence or small commercial establishment which is served by a category 1 or 2 failing private on-site wastewater treatment system may submit an application for grant funds during the 3-year period after the determination of failure is made. Grant funds may be awarded after work is completed if rehabilitation or replacement of the system meets all requirements of this section and rules promulgated under this section.

(b) Each principal residence or small commercial establishment may receive only one grant under this section.

(c) 1. In order to be eligible for grant funds under this section, the annual family income of the person who owns the principal residence may not exceed \$45,000.

2. Except as provided under subd. 4., annual family income shall be based upon the federal adjusted gross income of the owner and the owner’s spouse, if any, as computed for the taxable year prior to the year in which the determination of failure is made.

3. In order to be eligible for grant funds under this section, a person shall submit a copy of the federal income tax returns upon which the determination of federal adjusted gross income under subd. 2. was made together with any application required by the governmental unit.

4. A governmental unit may disregard the federal income tax return that is submitted under subd. 3. and may determine annual family income based upon satisfactory evidence of federal adjusted gross income or projected federal adjusted gross income of the owner and the owner’s spouse in the current year. The department shall promulgate rules establishing criteria for determining what constitutes satisfactory evidence of federal adjusted gross income or projected federal adjusted gross income in a current year.

(d) 1. In order to be eligible for grant funds under this section, the annual gross revenue of the business that owns the small commercial establishment may not exceed \$362,500.

2. Except as provided in subd. 4., annual gross revenue shall be based upon the gross revenue of the business for the taxable year prior to the year in which the determination of failure is made. The department shall promulgate rules establishing criteria for determining what constitutes satisfactory evidence of gross revenue in a prior taxable year.

3. In order to be eligible for grant funds under this section, a business shall submit documentation required by the department under subd. 2. together with any application required by the governmental unit.

4. A governmental unit may disregard the documentation of gross revenue for the taxable year prior to the year in which the determination of failure is made and may determine annual gross revenue based upon satisfactory evidence of gross revenue of the business in the current year. The department shall promulgate

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rules establishing criteria for determining what constitutes satisfactory evidence of gross revenue in a current year.

(e) The department of revenue shall, upon request by the department, verify the income information submitted by an applicant or grant recipient.

**(5m) DENIAL OF APPLICATION.** (a) The department or a governmental unit shall deny a grant application under this section if the applicant or a person who would be directly benefited by the grant intentionally caused the conditions which resulted in a category 1 or 2 failing private on-site wastewater treatment system. The department or governmental unit shall notify the applicant in writing of a denial, including the reason for the denial.

(b) The department shall notify a governmental unit if an individual's name appears on the statewide support lien docket under s. 49.854 (2) (b). The department or a governmental unit shall deny an application under this section if the name of the applicant or an individual who would be directly benefited by the grant appears on the statewide support lien docket under s. 49.854 (2) (b), unless the applicant or individual who would be benefited by the grant provides to the department or governmental unit a payment agreement that has been approved by the county child support agency under s. 59.53 (5) and that is consistent with rules promulgated under s. 49.858 (2) (a).

**(6) USE OF FUNDS.** (a) Except for grants under par. (b), funds available under a grant under this section shall be applied to the rehabilitation or replacement of the private on-site wastewater treatment system. An existing private on-site wastewater treatment system may be replaced by an alternative private on-site wastewater treatment system or by a system serving more than one principal residence.

(b) Funds available under a grant under this section for experimental private on-site wastewater treatment systems shall be applied to the installation and monitoring of the experimental private on-site wastewater treatment systems.

**(7) ALLOWABLE COSTS; STATE SHARE.** (a) Except as provided in par. (e), costs allowable in determining grant funding under this section may not exceed the costs of rehabilitating or replacing a private on-site wastewater treatment system which would be necessary to allow the rehabilitated system or new system to meet the minimum requirements of the state plumbing code promulgated under s. 145.13.

(b) Except as provided in par. (e), costs allowable in determining grant funding under this section may not exceed the costs of rehabilitating or replacing a private on-site wastewater treatment system by the least costly methods, except that a holding tank may not be used as the measure of the least costly method for rehabilitating or replacing a private on-site wastewater treatment system other than a holding tank.

(c) Except as provided in pars. (d) and (e), the state grant share under this section is limited to \$7,000 for each principal residence or small commercial establishment to be served by the private on-site wastewater treatment system or to the amount determined by the department based upon private on-site wastewater treatment system grant funding tables, whichever is less. The department shall prepare and publish private on-site wastewater treatment system grant funding tables which specify the maximum state share limitation for various components and costs involved in the rehabilitation or replacement of a private on-site wastewater treatment system based upon minimum size and other requirements specified in the state plumbing code promulgated under s. 145.02. The maximum state share limitations shall be designed to pay approximately 60% of the average allowable cost of private on-site wastewater treatment system rehabilitation or replacement based upon estimated or actual costs of that rehabilitation or replacement. The department shall revise the grant funding tables when it determines that 60% of current costs of private on-site wastewater treatment system rehabilitation or replacement exceed the amounts in the grant funding tables by more than 10%, except that the department may not revise the grant funding tables more often than once every 2 years.

(d) Except as provided in par. (e), if the income of a person who owns a principal residence that is served by a category 1 or 2 failing private on-site wastewater treatment system is greater than \$32,000, the amount of the grant under this section is limited to the amount determined under par. (c) less 30% of the amount by which the person's income exceeds \$32,000.

(e) Costs allowable for experimental private on-site wastewater treatment systems shall include the costs of installing and monitoring experimental private on-site wastewater treatment systems installed under s. 145.02 (3) (b) and this section. The department shall promulgate rules that specify how the department will select, monitor and allocate the state share for experimental private on-site wastewater treatment systems that the department funds under this section.

**(8) APPLICATION.** (a) In order to be eligible for a grant under this section, a governmental unit shall make an application for replacement or rehabilitation of private on-site wastewater treatment systems of principal residences or small commercial establishments and shall submit an application for participation to the department. The application shall be in the form and include the information the department prescribes. In order to be eligible for funds available in a fiscal year, an application is required to be received by the department prior to February 1 of the previous fiscal year.

(b) An American Indian tribe or band may submit an application for participation for any Indian lands under its jurisdiction.

**(9) CONDITIONS; GOVERNMENTAL UNITS.** As a condition for obtaining grant funding under this section, a governmental unit shall:

(a) Adopt and administer the maintenance program established under s. 145.20 (5);

(b) Certify that grants will be used for private on-site wastewater treatment system replacement or rehabilitation for a principal residence or small commercial establishment owned by a person who meets the eligibility requirements under sub. (5), that the funds will be used as provided under sub. (6) and that allowable costs will not exceed the amount permitted under sub. (7);

(c) Certify that grants will be used for private on-site wastewater treatment systems which will be properly installed and maintained;

(d) Certify that grants provided to the governmental unit will be disbursed to eligible owners;

(e) Establish a process for regulation and inspection of private on-site wastewater treatment systems;

(f) Establish a system of user charges and cost recovery if the governmental unit considers this system to be appropriate. User charges and cost recovery may include the cost of the grant application fee and the cost of supervising installation and maintenance; and

(g) Establish a system which provides for the distribution of grant funds received among eligible applicants based on the amount requested in the application as approved by the department. If the amount received by a county is insufficient to fully fund all grants, the county shall prorate grant funds on the same basis as sub. (11m).

**(10) ASSISTANCE.** The department shall make its staff available to provide technical assistance to each governmental unit. The department shall prepare and distribute to each participating governmental unit a manual of procedures for the grant program under this section.

**(11) ALLOCATION OF FUNDS.** (b) *Determination of eligible applications.* At the beginning of each fiscal year the department shall determine the state grant share for applications from eligible owners received by participating governmental units. The department may revise this determination if a governmental unit does not meet the conditions specified under sub. (9) or if it determines that individuals do not meet eligibility requirements under sub. (5).

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(c) *Allocation.* The department shall allocate available funds for grants to each participating governmental unit according to the total amount of the state grant share for all eligible applications received by that governmental unit.

(d) *Limitation; commercial establishments.* The department may not allocate more than 10% of the funds available under this subsection each fiscal year for grants for small commercial establishments.

(e) *Limitation; experimental private on-site wastewater treatment systems.* The department may not allocate more than 10% of the funds available under this subsection each fiscal year for grants for the installation and monitoring of experimental private on-site wastewater treatment systems.

**(11m) PRORATING.** (a) Except as provided in par. (d), the department shall prorate available funds under this subsection if funds are not sufficient to fully fund all applications. A prorated payment shall be deemed full payment of the grant.

(b) Except as provided in par. (d), if funds are sufficient to fully fund all category 1 but not all category 2 failing private on-site wastewater treatment systems, the department shall fully fund all category 1 systems and prorate the funds for category 2 systems on a proportional basis.

(c) Except as provided in par. (d), if funds are not sufficient to fully fund all category 1 failing private on-site wastewater treatment systems, the department shall fund the category 1 systems on a proportional basis and deny the grant applications for all category 2 systems.

(d) The department is not required to prorate available funds for grants for the installation and monitoring of experimental private on-site wastewater treatment systems.

**(12) DETERMINATION OF ELIGIBILITY; DISBURSEMENT OF GRANTS.** (a) The department shall review applications for participation in the state program submitted under sub. (8). The department shall determine if a governmental unit submitting an application meets the conditions specified under sub. (9).

(b) The department shall promulgate rules which shall define payment mechanisms to be used to disburse grants to a governmental unit.

**(12m) LOANS TO GOVERNMENTAL UNITS.** (a) A governmental unit to which the department allocates funds under sub. (11) for a fiscal year may apply to the department for a loan under this subsection if the department prorates funds under sub. (11m) for that fiscal year. A governmental unit may only use a loan under this subsection to increase the amounts of grants to persons eligible under sub. (5) above the amounts that would be provided without a loan under this subsection or to provide grants to persons eligible under sub. (5) who would otherwise not receive grants, because of the operation of sub. (11m) (c), but the total amount provided to a person under this section may not exceed the amount authorized under sub. (7).

(b) A loan under this subsection bears no interest. A loan under this subsection may not exceed the difference between the amount of the grant that the governmental unit would have received if the department had not prorated grants under sub. (11) and the amount of the grant that the governmental unit did receive. If the amount available for loans under s. 20.320 (3) (q) in a fiscal year is not sufficient to provide loans to all eligible governmental units applying for loans, the department shall allocate the available funds in the same manner as in sub. (11) (c).

(c) A loan approved under this subsection shall be for no longer than 20 years, as determined by the department of administration, and be fully amortized not later than 20 years after the original date of the note.

(d) As a condition of receiving a loan under this subsection an applicant shall do all of the following:

1. Pledge the security, if any, required by the department of administration under this subsection.

2. Demonstrate to the satisfaction of the department of administration the financial capacity to assure sufficient revenues to repay the loan.

(e) The department of safety and professional services and the department of administration may enter into a financial assistance agreement with a governmental unit that applies for a loan under this subsection and meets the eligibility requirements for a loan, including the requirements under par. (d).

(f) The department of administration, in consultation with the department of safety and professional services, may establish those terms and conditions of a financial assistance agreement that relate to its financial management, including what type of municipal obligation is required for the repayment of the financial assistance. In setting the terms and conditions, the department of administration may consider factors that the department of administration finds are relevant, including the type of obligation evidencing the loan, the pledge of security for the obligation and the applicant's creditworthiness.

(g) The department of administration shall make and disburse a loan to an applicant that has entered into a financial assistance agreement under par. (e). The department of administration, in consultation with the department of safety and professional services, shall establish procedures for disbursing loans.

(h) If a governmental unit fails to make a principal repayment after its due date, the department of administration shall place on file a certified statement of all amounts due under this subsection. After consulting the department of safety and professional services, the department of administration may collect all amounts due by deducting those amounts from any state payments due the governmental unit or may add a special charge to the amount of taxes apportioned to and levied upon the county under s. 70.60. If the department of administration collects amounts due, it shall remit those amounts to the fund to which they are due and notify the department of safety and professional services of that action.

**(13) INSPECTION.** Agents of the department or the governmental unit may enter premises where private on-site wastewater treatment systems are located pursuant to a special inspection warrant as required under s. 66.0119, to collect samples, records and information and to ascertain compliance with the rules and orders of the department or the governmental unit.

**(14) ENFORCEMENT.** (a) If the department has reason to believe that a violation of this section or any rule promulgated under this section has occurred, it may:

1. Cause written notice to be served upon the alleged violator. The notice shall specify the alleged violation, and contain the findings of fact on which the charge of violation is based, and may include an order that necessary corrective action be taken within a reasonable time. This order shall become effective unless, no later than 30 days after the date the notice and order are served, the person named in the notice and order requests in writing a hearing before the department. Upon this request and after due notice, the department shall hold a hearing. Instead of an order, the department may require that the alleged violator appear before the department for a hearing at a time and place specified in the notice and answer the charges complained of; or

2. Initiate action under sub. (15).

(b) If after the hearing the department finds that a violation has occurred, it shall affirm or modify its order previously issued, or issue an appropriate order for the prevention, abatement or control of the violation or for other corrective action. If the department finds that no violation has occurred, it shall rescind its order. Any order issued as part of a notice or after hearing may prescribe one or more dates by which necessary action shall be taken in preventing, abating or controlling the violation.

(d) Additional grants under this section to a governmental unit previously awarded a grant under this section may be suspended or terminated if the department finds that a private on-site waste-

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water treatment system previously funded in the governmental unit is not being or has not been properly rehabilitated, constructed, installed or maintained.

**(15) PENALTIES.** Any person who violates this section or a rule or order promulgated under this section shall forfeit not less than \$10 nor more than \$5,000 for each violation. Each day of continued violation is a separate offense. While an order is suspended, stayed or enjoined, this penalty does not accrue.

**History:** 1981 c. 1 s. 33; 1983 a. 27; 1983 a. 189 s. 329 (8); 1983 a. 545; 1985 a. 29; 1987 a. 27; 1989 a. 31, 326; 1991 a. 32; 1991 a. 39 ss. 2564fs to 2564fw, 2622Lm to 2622n; Stats. 1991 s. 145.245; 1991 a. 189; 1993 a. 16, 27; 1995 a. 27 ss. 4355, 9116 (5); 1995 a. 227, 404; 1999 a. 9; 1999 a. 150 s. 672; 2003 a. 169, 326; 2005 a. 347; 2009 a. 392; 2011 a. 32, 146; s. 35.17 correction (5) (a) 2.

**Cross-reference:** See also ch. [SPS 387](#) and s. [NR 128.30](#), Wis. adm. code.

**NOTE:** [2005 Wis. Act 347](#), which affected this section, contains extensive explanatory notes.

**145.26 Public swimming pool plan review. (1)** In this section, “public swimming pool” means a fixed or mobile structure, basin, chamber or tank and appurtenant buildings and equipment that serve or are installed for use by the state, a political subdivision of the state, a motel, a hotel, a resort, a camp, a club, an association, a housing development, a school, a religious, charitable or youth organization, an educative or rehabilitative facility or another entity. “Public swimming pool” does not mean a fixed or mobile structure, basin, chamber or tank that only serves fewer than 3 individual residences.

**(2)** The department shall, in advance of construction, alteration or reconstruction, review and approve plans and specifications for the construction, alteration or reconstruction of public

swimming pools or water recreation attractions or the alteration of public swimming pool equipment in this state.

**(3)** The department shall require payment of fees that are established by rule for the review of plans and specifications for the construction, alteration or reconstruction of public swimming pools or water recreation attractions or the alteration of public swimming pool equipment.

**(4)** No one may maintain, manage or operate a public swimming pool or water recreation attraction for which construction, alteration or reconstruction is made after January 1, 1990, unless all of the following have taken place:

(a) The department has reviewed and approved the construction, alteration or reconstruction under sub. [\(2\)](#).

(b) The applicable fee under sub. [\(3\)](#) has been paid.

(c) The construction, alteration or reconstruction of the public swimming pool or water recreation attraction conforms to the plans and specifications approved by the department under sub. [\(2\)](#).

**(5)** The department shall promulgate rules establishing all of the following:

(a) The definition of “water attraction”.

(b) The amounts of fees to perform review of plans and specifications as specified in sub. [\(2\)](#).

**(6)** Whoever violates this section or the rules promulgated under this section may be fined not less than \$100 nor more than \$5,000. Each day of continued violation constitutes a separate offense.

**History:** 1989 a. 31; 1993 a. 16 ss. 2402, 2561, 2562; Stats. 1993 s. 145.26.

**Cross-reference:** See also ch. [SPS 390](#), Wis. adm. code.

## Chapter SPS 390

### DESIGN AND CONSTRUCTION OF PUBLIC SWIMMING POOLS AND WATER ATTRACTIONS

#### Subchapter I — Administration

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#### Subchapter III — Wading Pools, Whirlpools, Interactive Play Attractions and Cold Soak Pools — Special Requirements

SPS 390.20	Wading pools.
SPS 390.21	Whirlpools and cold soak pools.
SPS 390.22	Interactive play attractions.

#### Subchapter IV — Play Features and Slides

SPS 390.30	Play features.
SPS 390.31	Slides.

#### Subchapter V — Incorporation of Standards

SPS 390.40	Incorporation of standards by reference.
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**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*, May, 1998, No. 509. Chapter Comm 90 as it existed on February 28, 2009, was repealed and a new chapter Comm 90 was created effective March 1, 2009. Chapter Comm 90 was renumbered chapter SPS 390 under s. 13.92 (4) (b) 1., Stats., *Register* December 2011 No. 672.

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

#### Subchapter I — Administration

**SPS 390.01 Authority and purpose.** This chapter is promulgated under the authority of ss. 101.02 and 145.26, Stats., to regulate the design and construction, alteration or reconstruction of public swimming pools, water attractions and associated equipment in order to protect the health and safety of the public.

**History:** CR 08-056; cr. *Register* February 2009 No. 638, eff. 3-1-09.

**SPS 390.02 Application. (1) APPLICABILITY.** This chapter applies to the design and construction of all public swimming pools, water attractions and associated slides, and to the reconstruction or alteration of all public swimming pools, water attractions and associated slides.

**Note:** Also refer to administrative rules administered by the department of Health Services, specifically ch. *DHS 172*, for additional requirements regarding public swimming pools, water attractions and associated slides.

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

**(2) RETROACTIVITY.** A rule of this chapter does not apply retroactively to public swimming pools, water attractions and associated slides existing prior to the effective date of the rule unless specifically stated in the rule.

**(3) LOCAL ORDINANCES.** A county, city, village or town or local board of health may enact ordinances for pools, water attractions and associated slides, provided the standards are not in conflict with this code.

**(4) PETITION FOR VARIANCE.** The department shall consider and may grant a variance to a provision of this chapter in accordance with ch. *SPS 303*.

**Note:** Chapter *SPS 303* requires the submittal of a petition for variance form (SBD-9890) and a fee, and that an equivalency is established in the petition for variance that meets the intent of the rule being petitioned. Form SBD-9890 is available at no charge from the department at the Safety and Buildings Division Web site at <http://dps.wi.gov/SB> through links to forms.

**History:** CR 08-056; cr. *Register* February 2009 No. 638, eff. 3-1-09; correction in (4) made under s. 13.92 (4) (b) 7., Stats., *Register* December 2011 No. 672.

**SPS 390.03 Definitions.** In this chapter:

**(1) “Accessible”** means easily and readily exposed for inspection and the replacement of materials or parts with the use of tools.

**(2) “ANSI”** means the American National Standards, Institute, Inc.

**(3) “Approved”** means acceptable to the department based on its determination of conformance with this chapter and good public health practices.

**(4) “ASME”** means the American Society of Mechanical Engineers.

**(5) “Basin”** means any vessel constructed of manmade materials and designed to hold water to be used as a public swimming pool or water attraction.

**(6) “Bed and breakfast establishment”** has the meaning found in s. 254.61 (1), Stats.

**Note:** Section 254.61 (1), Stats., reads: “Bed and breakfast establishment” means any place of lodging that: (a) Provides 8 or fewer rooms for rent to no more than a total of 20 tourists or transients; (b) Provides no meals other than breakfast and provides the breakfast only to renters of the place; (c) Is the owner’s personal residence; (d) Is occupied by the owner at the time of rental; (e) Was originally built and occupied as a single-family residence or, prior to use as a place of lodging, was converted to use and occupied as a single-family residence; and (f) Has had completed, before May 11, 1990, any structural additions to the dimensions of the original structure, including by renovation, except that this limit does not apply to any of the following: 1. A structural addition, including a renovation, made to a structure after May 11, 1990, within the dimensions of the original structure. 2. A structural addition, made to a structure that was originally constructed at least 50 years before an initial or renewal application for a permit under s. 254.64 (1) (b) is made and for which no use other than as a bed and breakfast establishment is proposed.

**(7) “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 pool bottom.

**(8) “Children’s slide”** means a slide that has a maximum height of 4 feet as measured vertically from the slide entrance to the slide terminus and terminating in less than 24 inches of water.

**(9) “Circulation system”** means the outlets, inlets, equipment and piping of pools and water attractions designed to circulate water at a predetermined quantity and velocity in order to treat and purify the water, but does not include backwash piping.

**(10) “Common wall”** means a partition separating two pools, water attractions or whirlpools, or any combination of the aforementioned.

**(11) “Contrasting color”** means a variance from a color of 2 steps or more in value and less than 6.5 in value on the Munsell color-order system.

**Note:** Contrasting colors may cross hue and chroma lines.

**(12) “Deck”** means the unobstructed walking surface immediately adjacent to the pool or water attraction.

(13) “Deep portion” means that portion of a pool having a design water depth greater than 5 feet.

(14) “Department” means the department of safety and professional services.

(15) “Drop slide” means a pool slide or water slide where the terminus is 20 inches or more above the water level.

(16) “Flume” means that part of a slide within which sliding takes place.

(17) “Interactive play attraction” means a water attraction, including but not limited to manufactured devices using sprayed, jetted or other water sources with a flow rate of more than 50,000 gallons per day or a circulation system with water contacting the users and not incorporating standing or captured water as part of the user activity area.

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

(18) “NSF” means the National Sanitation Foundation.

(19) “Open swim” means a period of time when persons, other than those residing in living units associated with the pool or water attraction, are permitted to use the pool or water attraction.

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

(21) “Patron” means a user of the pool.

(22) “Play feature” means a physical object installed in a pool or water attraction that is intended for recreational use.

(23) “Pool” or “public swimming pool” has the meaning found in s. 145.26 (1), Stats. Public swimming pools include all of the following:

(a) “Cold soak pool” means a public swimming pool containing water colder than 72°F that is commonly used in conjunction with therapy or training.

(b) “Combination pool” means a public swimming pool used for swimming and diving.

(c) “Competition pool” means any pool intended for use by accredited competitive aquatic events.

**Note:** Accredited organizations may include U.S. Swimming, U.S. Diving, National Collegiate Athletic Association, National Federation of State High Schools Association, or Wisconsin Interscholastic Athletic Association.

(d) “Diving pool” means a public swimming pool used exclusively for diving.

(e) “Exercise pool” means a public swimming pool of shallow depth usually associated with a health spa and which may or may not have a current.

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

(g) “Mobile pool” means a public swimming pool constructed on a mobile structure that is capable of being transported from place to place.

(h) “Therapy pool” means a public swimming pool used exclusively for medically administered therapy.

**Note:** Note: Medically administered may be demonstrated by showing that a Department licensed therapist is responsible for the pool.

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

**Note:** A zero–depth entry wading pool is an example of a wading pool.

(j) “Whirlpool” means a relatively small public swimming pool that uses high temperature water (greater than 93°F) and that may include a water agitation system. A whirlpool may also be referred to as a spa.

**Note:** Section 145.26 (1), Stats., reads:

“Public swimming pool” means a fixed or mobile structure, basin, chamber or tank and appurtenant buildings and equipment that serve or are installed for use by the state, a political subdivision of the state, a motel, a hotel, a resort, a camp, a club, an association, a housing development, a school, a religious, charitable or youth organization, an educative or rehabilitative facility or another entity. “Public swimming

pool” does not mean a fixed or mobile structure, basin, chamber or tank that only serves fewer than 3 individual residences.

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

(25) “Private guest room” means a room or rooms that provide sleeping accommodation offered for pay to tourists or transients.

(26) “Reconstructed or altered pool” means a pool construction project where replacement of or modification to the pool shell, circulation system and appurtenances occur. 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.

**Note:** See listing in Appendix A–390.03 (24).

(27) “Run–out slide” means a waterslide where the rider does not enter into a plunge pool, but has a deceleration area that permits the rider to come to a stop before exiting the slide flume.

(28) “Shallow portion” means the portion of a pool having a design water depth of 5 feet or less.

(29) “Skimmer” means a device installed in a pool wall at the water level that is connected to the circulation piping and is intended to skim debris from the surface of a pool.

(30) “Slip–resistant” means a material that when wet has a coefficient of friction greater than 0.5.

(31) “Splash zone” means the area where water falls on the floor of an interactive play attraction.

(32) “Spray feature” means equipment that produces a flow of water on the patrons as part of a recreational experience.

**Note:** Spray features include geysers, water cannons and dumping buckets.

(33) “Swimming pool complex” means two or more pools that are located within the same enclosure or room.

(34) “Swimout” means an underwater seat area that has a floor that is higher than the floor of the pool and has walls that are recessed within the main pool wall.

(35) “Suction outlet” means a discharge port installed in the wall or floor of a pool that connects by way of piping to a pump.

(36) “Tourist rooming house” has the meaning found in s. 254.61 (6), Stats.

**Note:** Section 254.61 (6), Stats., reads:

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

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

(b) A hotel.

(c) Bed and breakfast establishments.

(37) “Turnover rate” means the time for a given volume of water to pass through the circulation system. The volume of water is generally the basin volume and the time is usually expressed in hours.

(38) “Water attraction” means a public facility with design and operational features that provide patron recreational water activity other than conventional swimming and involves partial or total immersion of the body. Types of water attractions include:

(a) “Activity pool” means a water attraction with a depth of greater than 24 inches designed primarily for play activity that uses constructed features and devices including, but not limited to, pad walks, multiple flotation devices and similar attractions.

**Note:** The installation of a single basketball hoop, single flotation device or a single volleyball net does not transform a pool into a water attraction.

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

(c) “Plunge pool” means a pool with a depth of greater than 24 inches, located at the exit end of a waterslide flume and intended and designed to receive slide users emerging from the flume.

(d) “Vanishing edge pool” means a water attraction where the top of one or more of the basin walls are submerged with no accompanying decks.

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

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

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

**(39)** “Water attraction complex” means an enclosure or room where there are two or more water attractions or a water attraction and any number of public swimming pools.

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

**History:** CR 08-056: cr. Register February 2009 No. 638, eff. 3-1-09; renumbering of (39) and (40) made under s. 13.92 (4) (b) 1., Stats., Register February 2009 No. 638; correction in (14) made under s. 13.92 (4) (b) 6., Stats., Register December 2011 No. 672.

#### **SPS 390.04 Plan review and approval. (1) REVIEW.**

(a) *Review requirements.* All designs under the scope of this chapter shall be submitted to the department for review and receive approval from the department prior to the start of construction in accordance with this section.

**Note:** Department forms required in this chapter are available for a nominal fee at telephone 800-DOC-SALE or Contact Through Relay or at [doc-sales@doa.state.wi.us](mailto:doc-sales@doa.state.wi.us), or at no charge at the Department’s Web site <http://dps.wi.gov> through links to Safety and Buildings Division forms.

**Note:** For submittal of plumbing plans, see s. SPS 382.20.

(b) *Plans and specifications.* 1. At least 4 and no more than 5 complete sets of plans and one copy of specifications for the public swimming pool or water attraction design shall be submitted for review. These sets of plans and copies shall be clear, legible and permanently marked.

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

**Note:** Sufficient information may include the diving board manufacturer’s installation requirements and skimmer NSF/ANSI 50 ratings.

3. a. Plans and specifications, 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. Structural review of pool slides shall be based on conformance with the design requirements of slides and tower structures under ch. SPS 362.

4. The design for and extent of replaced or altered equipment and piping shall be included on the submittal of reconstructed or altered swimming pools or water attractions.

5. Pursuant to s. SPS 302.07 (3), the department shall review and make a determination on an application for plan review within 15 business days.

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

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

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

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

(g) *Fees.* Fees for plan review submittals shall be as specified in ch. SPS 302.

**(2) DETAILS.** (a) *General.* 1. The name and address of the owner shall be included on the plans or in a separate report.

2. A map indicating the exact location of the facility with street address shall be included on the plans or in a separate report.

(b) *Site.* Site information shall be included on the plans indicating at least the location of all wells and utilities, topography and natural water features.

(c) *Plot plan.* 1. A general map and detailed scaled drawings shall be submitted showing the site plan or floor plan of pertinent portions of the public swimming pool or water attraction structure, public swimming pool or water attraction orientation, including the location of all slides, interactive play attractions and play features. The designed pool water elevation shall be shown on the detailed drawing.

2. All water supply facilities, sources of drinking water, public or private sewers and relative elevations of paved or other walkways and the equipment room floor shall be shown on the plans.

3. When public water and sewer systems are proposed to serve the public swimming pool or water attraction, the elevations of storm and sanitary sewer inverts and street grade shall be shown on the plans.

(d) *Construction plans.* Detailed scaled and dimensional drawings for each individual pool or water attraction shall include at least all of the following:

1. A layout plan showing dimensioned longitudinal and transverse cross sections of the public swimming pool or water attraction. Include location and type of inlets, overflows, pool drains, suction outlets, deck drains, drinking fountains or sources of drinking water, piping, entries and exits, hosebibbs, fences, telephones, design of deck, curb or walls enclosing the pool, paved walkways, overflow gutters or devices, ladders, stairs, diving boards, slides and play features.

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

3. The plan drawings for all available sanitary facilities and any bathhouse facilities provided including dressing rooms, lockers and basket storage, showers and all other plumbing fixtures.

4. A single table with the specifications for the pool or water attraction and all associated equipment.

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

(e) *Specifications.* Complete technical specifications for the construction of the pool or water attraction and all appurtenances to accompany the drawings under par. (d), shall include at least all of the following:

1. All construction details not shown on the plans.

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

3. Number and location of plumbing fixtures and piping associated with the pool.

4. The sources of all water supplies.

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

6. Any information related to the project requested on the plan submittal application.

7. Any other information necessary to determine compliance with this chapter.

**(3) ALTERNATE PUBLIC SWIMMING POOL OR WATER ATTRACTION DESIGN REVIEW.** (a) *Innovation.* The provisions of this chapter are not intended to prevent innovative designs for public swimming pools or water attractions. The department may issue an approval of an alternate design if the design complies with the intent of this chapter.

(b) *Alternate designs.* 1. For an alternate public swimming pool or water attraction design, an approval shall be required before statewide installation and use.

2. Alternate designs submitted for review shall be accompanied by sufficient information for the department to determine if the design and its performance will meet the requirements of this chapter.

3. The department shall review and make a determination on an application for an alternate design submittal within 90 days of receipt of all information and fees required for completion of the review.

4. The department may include specific conditions in issuing an approval for an alternate design, including an expiration date for the approval. Violations of the conditions under which an approval is issued shall constitute a violation of this chapter.

5. If, upon review, the department determines that an alternate design does not comply with the intent of this chapter, the request for approval shall be denied in writing.

6. If a design receives alternate approval, a plan for the site-specific public swimming pool or water attraction complying with the alternate design approval shall be submitted in accordance with sub. (1).

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

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

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

(f) *Fees.* Fees for the review of an alternate design under this section and any onsite inspections shall be submitted in accordance with ch. SPS 302. Fees for any miscellaneous inspections shall be as specified in s. SPS 302.04 (2).

**(4) EXPERIMENTAL PUBLIC SWIMMING POOL OR WATER ATTRACTION DESIGN REVIEW.** (a) *Experimental review.* The provisions of this chapter are not intended to prevent innovative designs for public swimming pools or water attractions. The department may issue an approval of an experimental public swimming pool or water attraction design for the purpose of proving compliance with the intent of this chapter.

(b) *Experimental designs.* 1. Experimental public swimming pool or water attraction designs submitted for review shall be accompanied by sufficient information as requested by the department.

2. The department shall review and make a determination on an application for an experimental submittal within 120 days of receipt of all information and fees required for completion of the review.

3. The department may include specific conditions in issuing an approval for an experimental design, including an expiration date for the approval. Violations of the conditions under which an approval is issued shall constitute a violation of this chapter.

4. If, upon review, the department determines that an experimental design is not acceptable, the request for approval shall be denied in writing.

5. If a design receives experimental approval, a plan for the site-specific public swimming pool complying with the experimental design approval shall be submitted in accordance with sub. (1).

6. The department may limit the number of applications for review of experimental systems.

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

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

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

(f) *Fees.* Fees for the review of an experimental design under this section and any onsite inspections shall be submitted in accordance with ch. SPS 302. Fees for any miscellaneous inspections shall be as specified in s. SPS 302.04 (2).

**Note:** Plans and specifications are to be submitted to the Department of Safety and Professional Services, Safety & Buildings Division, P.O. Box 7162, Madison, Wisconsin 53707-7162 or to 201 West Washington Avenue, Madison, Wisconsin, 53703.

**History:** CR 08-056; cr. Register February 2009 No. 638, eff. 3-1-09; correction in (1) (b) 3., b., 5., (g), (3) (f), (4) (f) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

**SPS 390.05 Construction.** (1) **CONSTRUCTION SUPERVISION.** (a) *Options.* 1. The installation, alteration or reconstruction of any public swimming pool or water attraction shall be under the supervision of a construction contractor pursuant to s. 443.14 (6), Stats., or a Wisconsin registered architect or engineer.

**Note:** Section 443.14 (6), Stats., reads: Notwithstanding any other provision of this chapter, contractors, subcontractors or construction material or equipment suppliers are not required to register under this chapter to perform or undertake those activities which historically and customarily have been performed by them in their respective trades and specialties, including, but not limited to, the preparation and use of drawings, specifications or layouts within a construction firm or in construction operations, superintending of construction, installation and alteration of equipment, cost estimating, consultation with architects, professional engineers or owners concerning materials, equipment, methods and techniques, and investigations or consultation with respect to construction sites, provided all such activities are performed solely with respect to the performance of their work on buildings or with respect to supplies or materials furnished by them for buildings or structures or their appurtenances which are, or which are to be, erected, enlarged or materially altered in accordance with plans and specifications prepared by architects or professional engineers, or by persons exempt under subs. (1) to (5) while practicing within the scope of their exemption.

2. The supervising construction contractor, architect or engineer shall be responsible for the public swimming pool or water attraction being in conformance with this chapter and the plans and specifications approved by the department.

3. At the time of the arranging the first inspection, the owner or the owner's authorized agent shall designate to the department the name and address of the supervising construction contractor or the name and certification number of the supervising architect or engineer.

(b) *Operation and maintenance instructions.* Upon completion of any public swimming pool or water attraction, the owner or owner's agent shall be given complete written instructions concerning operation of the pool or water attraction, all equipment, the circulation system, and the maintenance of the water quality.

(c) *Certification of compliance.* 1. Prior to the completion of the final inspection of any public swimming pool or water attraction, the supervising construction contractor, architect or engineer shall provide to the department a compliance statement.

2. The compliance statement shall certify that the installation is in compliance with this chapter.

3. The compliance statement shall be in a format acceptable to the department.

**(2) CONSTRUCTION INSPECTION.** (a) Every new installation, alteration or reconstruction of a public swimming pool or water attraction shall be inspected as required in this section.

(b) The construction, alteration or reconstruction of any public swimming pool or water attraction shall be inspected by an authorized representative of the department.

**Note:** See Appendix A-390.05 (2) for listing of additional authorized representatives of the department.

(c) 1. A rough-in inspection shall be conducted when the piping system is installed and before the piping system is covered.

2. The supervising construction contractor, architect or engineer shall notify the department's authorized representative by telephone when underground work is complete and ready for an inspection to be scheduled.

3. Except as provided under subd. 3., work may not proceed until the inspection has been completed.

4. If the inspection is not made by the end of the normal business day following the day of notification, not including Saturday, Sunday or legal holidays, the installation work may proceed.

(d) 1. A final inspection shall be made when the construction, alteration or reconstruction is complete.

**Note:** A final inspection includes, but is not limited to, sanitary facilities, pools, fences and decks.

2. The supervising construction contractor, architect or engineer shall notify the department's authorized representative by telephone when all work is complete and ready for an inspection to be scheduled.

3. A request for the final inspection shall be made at least 24 hours prior to the requested time for the inspection.

4. The final inspection shall be completed within 5 business days of the requested inspection date.

**Note:** Inspections are only available during standard business hours.

(e) The supervising construction contractor, architect or engineer shall provide the necessary equipment and personnel required for the inspection as requested by the authorized representative of the department.

(f) If the authorized representative of the department finds that the installation does not comply with this chapter, necessary corrections shall be made to achieve compliance. The authorized representative of the department shall be notified by the supervising construction contractor, architect or engineer when the corrections are completed.

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

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

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

(d) The department shall monitor and periodically evaluate the construction inspection functions that are authorized to the governmental unit under this section.

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

(f) The authorization to conduct construction inspections may be revoked by the department at the department's sole discretion.

**History:** CR 08-056: cr. Register February 2009 No. 638, eff. 3-1-09.

**SPS 390.07 Fines.** 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 pursuant to s. 145.26 (6), Stats., not less than \$100 nor more than \$5,000 for each violation. Each day of continued violation is a separate offense.

**History:** CR 08-056: cr. Register February 2009 No. 638, eff. 3-1-09.

## Subchapter II — The Design of Public Swimming Pool and Water Attractions

### SPS 390.10 Minimum design requirements.

**(1) GENERAL REQUIREMENTS.** (a) Any construction or alteration of a pool or water attraction shall be designed and installed as specified under this subchapter.

(b) The design of pools and water attractions shall be based on generally accepted engineering practices. Some of the details of design, construction and installation may vary from the specifications of this code, but the basic engineering principles desirable and necessary to protect the health and safety of pool users and patrons shall be used by the department for situations not addressed in this subchapter.

**(2) LOCATION.** Pools and water attractions shall be located on a site conducive to proper operation, maintenance and safety of the pool or water attraction. The site shall be well drained.

**(3) STRUCTURAL STABILITY.** All pools and water attractions shall be designed and installed to be structurally sound.

**(4) MATERIALS.** (a) Pools and water attraction surfaces shall be impervious, easy to clean, inert and nontoxic to humans.

(b) Pools and water attractions shall be constructed of materials that do not create a toxic condition in the environment.

**(5) FREEZING.** Where subject to freezing temperatures, the basin and appurtenances, piping, filter system, pump and motor and other components shall be designed and constructed to facilitate protection from damage due to freezing.

**(6) EQUIPMENT AND MATERIAL APPROVAL.** All material and equipment used in the operation of a pool or water attraction within the scope of ANSI/NSF 50 shall conform to ANSI/NSF 50 or the equivalent.

**(7) VENTILATION.** Ventilation shall be provided for all indoor pools and water attractions.

**Note:** See ch. SPS 364 for requirements for ventilation.

**(8) SLIP RESISTANCE.** (a) The surfaces intended to provide patron footing within the pool enclosure or on the deck shall have a slip-resistant surface.

(b) The surfaces intended to provide patron footing include patron walkways, deck, stair treads, zero-depth entries and water levels less than 24 inches in depth.

**Note:** Slide flume surfaces are not intended to provide patron footing.

**(9) CONSTRUCTION TOLERANCES.** Construction tolerances may not exceed the applicable design dimensions beyond those designated in Table 390.10.



**Table 390.11-1**  
**Dimensions Related to Figure 390.11-1**

Type of Pool		Depths			Lengths						
		D-1 <sup>1</sup>	D-2	D-3	A <sup>2</sup>	B	C	D	E	F <sup>3</sup>	G <sup>3</sup>
With 26" (2/3 M) Diving Board	Min	5'0"	9'0"	8'6"	2'6"	**	10'0"	5'0"	10'0"	*	*
	Max	D-2	*	D-2	3'0"	*	*	*	*	10'0"	20'0"
With 30" (3/4 M) Diving Board	Min	5'0"	10'0"	9'6"	3'0"	**	12'0"	5'0"	10'0"	*	*
	Max	D-2	*	D-2	4'0"	*	*	*	*	10'0"	20'0"
With One Meter Diving Board	Min	5'0"	11'0"	10'6"	4'0"	**	15'0"	8'0"	10'0"	*	*
	Max	D-2	*	D-2	5'0"	*	*	*	*	10'0"	20'0"
With 3 Meter Diving Board	Min	5'0"	12'0"	11'6"	5'0"	**	18'0"	10'0"	15'0"	*	*
	Max	D-2	*	D-2	6'0"	*	*	*	*	10'0"	20'0"

\* No limiting dimension.

\*\* Distance is as required by the diving equipment manufacturer.

<sup>1</sup> The D-1 measurement shall be taken at the end wall or not more than 6 inches from the wall.

<sup>2</sup> The diving board length extending over the pool shall not be less than "A" and in accordance with the diving equipment manufacturer's installation instructions.

<sup>3</sup> This dimension is only applicable to pools with wall inlets.

**(4) BASIN OBSTRUCTIONS.** (a) 1. Protrusions, extensions and other functional elements within a basin may not create a safety hazard.

2. Protrusions, extension and other functional elements may not negatively impact the circulation system.

3. When an obstruction is a recreational object in water of 24 inches or more in depth, the obstruction shall be a color that contrasts with the color of the basin.

4. Basin obstructions in public swimming pools shall be no more than 2 feet in diameter, protrude undiminished in diameter to at least 5 feet above the pool floor and no less than 3 feet above the water level.

5. Obstructions including handrails, exercise equipment and therapy structures may only be installed in therapy pools.

(b) Stair and ladder handrails are not considered basin obstructions when installed in accordance with s. [SPS 390.12](#).

**(5) WALLS AND BULKHEADS.** (a) *Basin walls.* 1. Basin walls shall be vertical.

2. Except for vanishing edge designs, basin walls shall extend above the highest water level at all times during operation.

3. Protruding corners shall be rounded so as to protect users from lacerations.

(b) *Interior walls and common walls.* In addition to the requirements in par. (a), interior walls and common walls may not exceed 18 inches in width.

(c) *Bulkheads.* Bulkheads may be installed only in pools with a department of health services-approved lifeguard staffing plan that addresses supervision of the bulkhead.

**(6) COLORS AND FINISHES.** (a) All pool interiors shall be light in color, having a value of 6.5 or greater on the Munsell color-order system.

(b) All colors, patterns or demarcation lines may not negatively impact observer's visualization of bathers.

(c) All demarcation lines shall be of contrasting color to the pool interior.

**(7) FLOOR SLOPE.** (a) Basin floors shall slope to drain.

(b) Basin floor slopes may not exceed 1:12 in water depths less than 5 feet.

**(8) TRANSITIONAL RADIUS.** (a) Basin walls shall be joined to the floor with a tangent radius.

(b) For areas less than 5 feet in depth, the maximum radius between the floor and the basin wall shall be 6 inches.

**Note:** See the appendix for information on measuring the radius dimension.

**(9) WATER DEPTHS.** (a) Basin depths for diving areas shall comply with Table 390.11-1.

(b) Basin depths for slide installations shall comply with Table 390.31-1.

(c) Except as permitted for wading pools in s. [SPS 390.20](#), the shallowest water depth of the shallow end of pools shall be a minimum of 30 inches and a maximum of 42 inches.

(d) The water depth at the breakpoint in a combination pool shall be no less than 4.5 feet and no more than 5.5 feet.

**(10) VANISHING EDGES.** A single vanishing edge basin wall occupying a maximum of 50% of the basin perimeter may be included within a water attraction when all of the following are included in the design:

(a) The vanishing edge is located adjacent to water that is at least 5 feet deep.

(b) A catch ledge, a minimum of 3 feet in width or equivalent protection, is included on the dry side of the basin wall.

(c) The catch ledge shall be located outside of the basin within 3 feet vertically from the top of the basin wall.

(d) The catch ledge shall be designed to prevent a patron from rolling off the catch ledge.

(e) The catch ledge surface shall be constructed of materials that will not cause injury from abrasions or lacerations.

**Note:** See the appendix for further information on the design of vanishing edge basin walls.

**History:** CR 08-056: cr. Register February 2009 No. 638, eff. 3-1-09; correction in (1) (b), (d), (3) (b), (4) (b), (9) (a), (b), (c) made under s. [13.92 \(4\) \(b\) 7.](#), Stats., Register December 2011 No. 672.

**SPS 390.12 Entries and exits, stairs, ladders, swim-outs and benches.** (1) ENTRIES AND EXITS. The minimum number, type and location of entries and exits shall be in accordance with Table 390.12-1.

**Table 390.12-1**  
**Entry and Exit Locations and Type**

Basin Type	Entry and Exit Requirements
<b>POOLS</b>	
Swimming Pools	Minimum of two exits Exits within 75 feet along perimeter
Therapy Pools	As approved by the department
Wading Pools	Minimum of 50 percent of the pool
Whirlpools or Cold Soak Pools	Recessed stairs 25 feet from any point in the pool <sup>a</sup>
<b>WATER ATTRACTIONS</b>	
Wave Pools	Entry and exit at zero-depth entry, only <sup>b</sup>
Activity Pools	Exits within 50 feet from any point in the pool
Plunge Pools	Entry from slide, only Exits within 50 feet from any point in the pool <sup>a</sup>
Leisure Rivers	Minimum of one entry and exit
Vortex Pools	Minimum of one entry and exit
<b>DIVING AREAS as delineated in s. SPS 390.11 (3)</b>	
Diving Areas	On the perimeter of the pool within 50 feet of any point in the diving area <sup>a</sup>
<b>Other Basin Types</b>	Contact the department

<sup>a</sup> Travel to stairs is measured as the most direct path within the basin.

<sup>b</sup> Emergency exits may be permitted with written approval of the department.

(2) ZERO-DEPTH AND SHALLOW ENTRIES. (a) Except as permitted in par. (b) stairs, ladders, recessed treads and swimouts may serve as acceptable entries and exits.

(b) Where the distance from the pool floor to deck surface is 24 inches or less, such areas shall be considered as providing their own natural mode for entry and exit.

(3) STAIRS AND HANDRAILS. (a) *Stairways*. 1. Stairways shall be located only in areas of the basin with less than 5 feet of water depth.

2. Stairways shall be recessed so as not to protrude onto the basin floor.

3. All risers at the centerline shall have a maximum uniform height of 10 inches.

4. All treads shall have a minimum depth of 10 inches.

5. Stairways shall have a minimum width of 17 inches.

6. All treads shall have a minimum unobstructed surface area of 240 square inches.

7. Except as permitted in subd. 8., treads may not project beyond the face of the riser.

8. The maximum cantilevered coping at the deck level is one inch.

9. a. Except as required in subd. 9. b., stairways shall extend to the basin floor.

b. When stairways are located in a water depth over 4 feet, the lowest tread shall not be more than 4 feet below the deck.

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

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

12. All step corners shall be rounded to a radius of 1/2 inch.

(b) *Handrails*. 1. Handrails shall be provided for all stairways and ramps.

2. Handrails shall be located between 30 and 34 inches above the ramp surface or nosing of the stair treads.

3. Handrails shall be a maximum of 8 feet apart at deck level.

4. Handrails shall return to the pool wall, guard or deck or shall be continuous to the handrail of an adjacent stair.

5. Handrails shall be made of corrosion resistant materials.

6. Handrails shall be securely anchored.

7. Handrails shall be installed so they cannot be removed without the use of tools.

8. The leading edge of stair tread-mounted handrails shall be located on the bottom tread.

9. The leading edge of entirely deck-mounted handrails shall be located so as to extend to within 3 inches of the vertical plane of the bottom riser.

**Note:** See the appendix for further clarification of deck-mounted handrail installation.

10. The outside diameter of handrails shall be a minimum of 1-1/4 inches and may not exceed 1-15/16 inches.

11. There shall be at least 3 inches but not more than 6 inches clearance between the pool wall and the handrail.

(4) LADDERS. (a) Ladders shall be provided with two handrails.

(b) There shall be at least 3 but not more than 6 inches clearance between the basin wall and the ladder.

(c) The distance between ladder handrails shall be 17 inches minimum and 24 inches maximum.

(d) There shall be a uniform distance between ladder treads with a 7-inch minimum distance and 12-inch maximum distance.

(e) Ladder treads shall have a minimum horizontal uniform depth of 2 inches.

(5) RECESSED TREADS. (a) Recessed treads in a basin wall shall have a uniform vertical spacing of no less than 7 inches and no greater than 12 inches measured at the centerline.

(b) The vertical distance between the pool coping edge, deck or step surface and the uppermost recessed tread shall be 12 inches maximum.

(c) Recessed treads shall have a depth of no less than 5 inches and width of no less than 12 inches.

(d) Recessed treads shall drain into the pool.

(e) Recessed treads shall be provided with a handrail on each side of the treads.

(6) SWIMOUTS. (a) The horizontal surface of a swimout may not be greater than 20 inches below the waterline.

(b) A minimum unobstructed surface equal to that required for a stair under sub. (5) shall be provided in a swimout.

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

(d) A swimout may occupy no more than 20 percent of the perimeter of the basin.

(e) The horizontal surface of a swimout may extend no further than 48 inches from the main basin wall.

(7) UNDERWATER SEATS AND BENCHES. (a) Underwater seats and benches shall be located in a recessed area to eliminate any protrusion beyond the main basin wall except in whirlpools and cold soak pools.

(b) 1. The width of the bench seat may not exceed 18 inches.

2. The depth of the water above the bench seat may not exceed 20 inches.

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

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

(e) Underwater seats and benches may not be considered an entry or exit.

**(8) LIFT CHAIRS.** Water supply outlets serving lift chairs shall terminate within 18 inches of the chair’s support post.

**History:** CR 08–056: cr. Register February 2009 No. 638, eff. 3–1–09; correction in (1), Table 390.12–1 made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

**SPS 390.13 Deck. (1) MINIMUM DECK.** (a) Except as permitted in pars. (b) to (e), deck shall extend around the entire perimeter of all basins within the same enclosure.

(b) A water attractions shall be provided with deck immediately adjacent to a basin where patrons are allowed to walk.

(c) A wading pool shall be provided with deck around at least 50 percent of the basin perimeter.

(d) A whirlpool shall be provided with deck around at least 50 percent of the basin perimeter.

(e) A therapy pool shall be provided with deck at all entry and exit points.

**(2) DECK WIDTH.** (a) Except as required in pars. (b) to (e), deck shall extend for at least 6 feet from all basins.

(b) Deck shall extend for at least 5 feet from a whirlpool basin.

(c) Deck shall extend for at least 3 feet around deck obstructions and equipment.

(d) Deck shall extend for at least 12 feet from a basin with a water depth exceeding 24 inches to a basin with a water depth less than 30 inches or an interactive play attraction.

(e) Deck shall extend for a minimum 15 feet from a basin to locker or shower room doors where the basin meets all of the following criteria:

1. The basin consists of 3,500 square feet of water surface.
2. The basin has a water depth exceeding 24 inches.

(f) Deck required in par. (e) shall extend for at least 12 feet wide at all locker or shower room doors.

(g) Deck areas that do not provide the minimum deck required in pars. (b) to (f) shall be installed so as to permanently prohibit public access from the deck.

**Note:** See appendix for further information.

**(3) DECK OBSTRUCTIONS.** (a) Except as permitted in par. (c), deck obstructions, including roof support columns, may be no greater than 2 feet in diameter and of contrasting color so as to provide adequate clearance, safety, visibility and access where a department of health services–approved lifeguard staffing plan is not required.

**Note:** Deck obstructions include pillars, play equipment and themeing. Equipment includes but is not limited to ladders, life guard chairs, lift chairs and handrails.

(b) Deck obstructions shall extend a minimum of 3 feet above the deck so as not to create a tripping hazard.

(c) Deck obstructions may occupy a maximum of 10 percent of the pool perimeter for basins where a lifeguard staffing plan is not required.

**(4) IN–DECK VENTILATION SYSTEMS.** (a) Ventilation registers in decks shall be installed so that water flowing from the surrounding pool deck will not enter the registers, but will flow to the deck drains serving the deck.

(b) Ventilation registers in decks shall be installed so that the registers are one inch higher than the deck drain grating.

(c) Where ventilation registers are installed in decks, the owner of the facility shall obtain approval from the department of health services for their means of deck maintenance.

**(5) DECK SLOPES.** (a) Except as permitted in subds. 2. and 3., interior decks shall be sloped so as to effectively drain to deck drains.

1. The maximum slope of interior decks shall be ½ inch per foot.

2. A maximum of 6 feet of deck adjacent to a plunge pool exit, stairway or runout slide terminal section may discharge to the surge tank.

3. A maximum width of 20 inches of deck between a wall and a basin may discharge to the basin.

(b) 1. Except as permitted in subd. 2., exterior decks shall be sloped a maximum of ½ inch per foot as to effectively drain to deck drains, perimeter areas or to the plumbing storm system.

**Note:** See s. SPS 382.36 for plumbing storm system design information.

2. Exterior elevated decks may be drained to underlying soils to infiltrate.

(c) Decks shall be constructed so that standing water shall be no deeper than 1/8 inch, 20 minutes after the cessation of the addition of water to the deck.

**Note:** Two USA quarters may be stacked in order to test the standing water depth.

**(6) DECKS, RAMPS AND WALKING AND STEP SURFACES.** (a) 1. Decks, ramps walking and step surfaces shall be nontoxic.

2. Surfaces shall be slip resistant.

3. Surfaces shall be easily cleanable.

4. Surfaces shall not cause injury to user’s feet under normal conditions.

(b) The deck edge that pool patrons may come in contact with shall be radiused, tapered or otherwise relieved to minimize sharpness.

**(7) JOINTS.** (a) The maximum joint width between pool decks and other decks or walkways, including joint material, shall be 3/8 inch of horizontal clearance with a maximum difference in vertical elevation of ¼ inch.

**Note:** This section refers to joint widths between the pool deck and other adjacent decks.

(b) Construction joints between pools and concrete decks shall be watertight.

**(8) DECK STAIRS.** (a) Exterior deck stair risers shall be uniform and have a minimum height of 4 inches and a maximum height of 7 inches.

(b) Exterior deck stair treads shall be uniform and have a minimum depth of 11 inches.

(c) A handrail shall be provided along both sides of stairs having more than one riser including the riser to the deck.

(d) The height of the handrail shall be at least 34 inches but not more than 38 inches above the nosing of the tread.

(e) Handrails shall return to the pool wall, guard or deck or shall be continuous to the handrail of an adjacent stair.

(f) Handrails shall be located at the outside edge of stairs.

**Note:** Interior deck stairs shall comply with the requirements in chs. SPS 361 to 366, the Commercial Building Code.

**(9) SERVICE EQUIPMENT.** (a) *Access to valves.* 1. Valves installed in or under any deck shall have access provided for operation, service and maintenance.

2. Access covers shall be provided for valve pits.

(b) *Cleaning.* 1. One hose bibb shall be provided in each public swimming pool or water attraction equipment room.

2. Additional hose bibbs shall be provided as necessary, and at intervals so as to permit adequate cleaning of the deck and toilet facilities using a maximum of 100 feet of hose when laid across the deck surface.

**(10) LANDSCAPING.** (a) Landscaping within the barrier required in s. SPS 390.18 (4) shall comply with at least one of the following:

1. Organic material and inorganic pervious material shall be separated from the otherwise required deck by an additional 5 feet of deck.

2. Organic material and inorganic pervious material shall be installed in a 4–inch depression surrounded by a 42–inch high barrier.

(b) Sand play areas may not be located within a pool enclosure unless all of the following are met:

1. The sand play area is separated from the deck by a 42-inch high rope and bollard or other fence barrier.
2. Foot or body showers shall be provided at any entrances to the deck from the sand play area.
3. Sand play areas shall be located outside the deck required in sub. (2).

**History:** CR 08-056: cr. Register February 2009 No. 638, eff. 3-1-09; correction to numbering of (8) (f) made under s. 13.92 (4) (b) 1., Stats., Register February 2009 No. 638; correction in (10) (a) (intro.) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

**SPS 390.14 Circulation systems.** A water circulation system consisting of pumps, piping return inlets and suction outlets, filters and other necessary equipment shall be provided that complies with all of the following requirements:

(1) **TURNOVER RATE.** Circulation system equipment shall be designed to produce a turnover rate as specified in Table 390.14-1 or Table 390.14-2.

**Note:** See the appendix for further information.

**Table 390.14-1  
Maximum Turnover Rates<sup>a</sup>**

Area/Basin Type <sup>b</sup>	Maximum Turnover Rate (hours) <sup>c</sup>
Swimming/Diving	6
Activity	2 <sup>d</sup>
Interactive Play Attraction	0.5
Lap Lanes	6
Leisure River	2
Plunge	1
Runout Slide	1
Vortex	1
Wave	2
Cold Soak	4
Wading Pool	1
Whirlpool	0.5

<sup>a</sup> Calculate an average turnover time for multi-sectional basins.

<sup>b</sup> For pool types not listed herein, contact the department.

<sup>c</sup> Based on flow and pressure drop with a clean filter condition.

<sup>d</sup> Or as otherwise approved by the department.

**Table 390.14-2  
Therapy/Exercise Turnover Times**

Temperature in °F	Load <sup>a</sup> (gals/person)	Maximum Turnover Time (hours)
< 72 – 93	≥ 2,500	4
< 72 – 93	≥ 450	2
< 72 – 93	≤ 450	1
> 93 – 104	N/A	0.5

N/A Not applicable

<sup>a</sup> The number of persons is equal to the posted patron load.

**Note:** A therapy area within a multi-section pool having a temperature of ≤ 93°F is considered to be an activity pool.

(2) **SEPARATE SYSTEMS.** The circulation system shall be separate for each public swimming pool or water attraction.

(3) **SEPARATION FROM SLIDES AND PLAY FEATURES.** (a) Except as provided in pars. (b) and (c), public swimming pool or water attraction circulation systems may not serve slide or spray features.

(b) A maximum of 10 percent of the required circulation system rate may be provided for the lubrication of slides or to spray features.

(c) Flow in excess of the required circulation rate may serve slides and spray features.

(4) **ACCESSIBILITY.** Circulation system equipment, including but not limited to pumps, skimmers, filters, gauges, meters and thermometers, shall be readily accessible for inspection, repair or replacement.

(5) **COMPONENT STANDARDS.** Equipment that is within the scope of ANSI/NSF 50, circulation system components and related materials, shall be listed by an acceptable listing agency to meet ANSI/NSF 50 or equivalent.

(6) **INSTALLATION.** (a) Pool equipment and related piping shall be supported to prevent damage from misalignment and settling.

(b) Pool equipment shall be installed in accordance with manufacturer's printed instructions and as specified in this chapter. If there is a conflict between the manufacturer's printed instructions and requirements of this chapter, the requirements of this chapter shall take precedence.

(7) **VELOCITIES AND PIPE SIZING REQUIREMENTS.** (a) Velocities in the circulation system may not exceed:

1. Ten feet per second in discharge piping other than copper.
2. Eight feet per second in copper discharge piping.
3. Six feet per second in suction piping.
4. One and one-half feet per second through suction grates.

(b) Pool piping shall be sized to permit the rated flows for filtering and cleaning without exceeding the maximum design head of the pump.

(8) **GAUGES AND FLOW METERS.** (a) A pump suction compound gauge shall be included in all circulation systems.

(b) A pump discharge gauge shall be located upstream of all throttling valves.

(c) A filter pressure gauge shall be included serving all filters in circulation systems.

(d) A flow meter capable of displaying flow during filtration shall be included in all circulation systems.

(9) **TESTING.** Circulation system piping that is installed onsite shall be subjected to an induced static hydraulic pressure test at 25 pounds per square inch for at least one hour.

(10) **FILTERS.** (a) *Design.* Filters shall be specified so that when operated and maintained in accordance with the manufacturer's printed instructions, the system provides the water clarity required in ch. DHS 172.

(b) *Maximum flow rate.* 1. Filters other than high rate sand filters shall be specified so that the maximum flow rate does not exceed those under ANSI/NSF 50.

2. High rate sand filters shall be specified so that the maximum flow rate does not exceed 15 gallons per minute per square foot or bed surface area.

(c) *Pressure release.* 1. Pressure-type filters shall be provided with a means to permit the release of internal pressure.

2. Filters incorporating an automatic air vent as the principal means of air release shall have a lid that provides a slow and safe release of pressure as a part of the design and have manual air release in addition to the automatic release.

3. Separation tanks used in conjunction with a filter tank shall comply with subd. 2.

4. The following statement shall be placed within the area of the air release so as to be clearly visible: "WARNING. DO NOT START UP THE SYSTEM AFTER MAINTENANCE WITHOUT FIRST OPENING THE AIR RELEASE AND PROPERLY ASSEMBLING THE FILTER AND SEPARATION TANK."

(11) **CIRCULATION PIPING.** (a) Circulation piping shall be listed as meeting one of the following methods:

1. ANSI/NSF 50 by a listing agency acceptable to the department.
2. Chapter SPS 384.

(b) All circulation piping shall be listed to withhold a pressure 50 percent greater than the maximum design pressure.

**(12) PUMPS AND MOTORS.** (a) All circulation pumps shall be capable of providing the design flow rates at one of the following minimum total dynamic heads:

1. Eighty feet for diatomaceous earth filters.
2. Seventy feet for sand or cartridge filters.
3. Fifty feet for vacuum filters.
4. A maximum total dynamic head value recommended by the filter manufacturer that allows the filter to function under all operating conditions.

(b) Pumps located below the waterline of a basin shall have isolation valves installed on suction and discharge lines.

(c) Pumps located above the waterline of the pool shall be self-priming or the system shall be designed to provide a means for priming.

(d) Intake strainers shall be provided upstream of all circulations pumps on pressure filter systems.

(e) Mechanical seals shall be corrosion resistant.

**(13) RETURN INLETS AND SUCTION OUTLETS.** (a) Inlets and outlets shall be provided and arranged to produce a uniform circulation of water and maintain the distribution of sanitizer residual throughout the pool.

(b) *Return inlets.* 1. Return inlets shall be designed and installed so as to not constitute a hazard to the patron.

**Note:** An example of an inlet installation constituting a hazard to a patron is an inlet installed on a racing lane cross.

2. There shall be at least 2 inlets per circulation system.
3. Except as provided in subd. 4., the velocity of flow through any inlet orifice shall be in the range of 5 to 20 feet per second

**Note:** See the appendix for inlet velocity information.

4. For pools equipped with skimmers the velocity of flow through any inlet orifice shall be in the range of 10 to 20 feet per second.

5. Except for leisure rivers, the minimum number of return inlets shall be based on at least one additional inlet per 300 square feet of pool surface area or fraction thereof.

6. There shall be at least one wall return inlet for each 10 feet of stairway width, recessed bench length or swimout length or width or fraction thereof.

7. Bottom return inlets shall be flush with the basin floor.

8. Bottom return inlets shall be considered to have an area of influence of a radius of 10 feet.

**Note:** See the appendix for further explanatory material.

9. Wall return inlets may not extend more than one inch into a basin.

10. Except for leisure rivers, there shall be a wall return inlet within 5 feet of each corner of a basin wall.

(c) *Suction outlets.* 1. Suction system flow through main drains shall be designed to accommodate 100 percent of the circulation flow rate in accordance with all of the following:

a. All basins shall be provided with a suction outlet in the lowest point of the basin in the floor or the wall.

**Note:** For main drains installed in diving wells, see Table 390.06-1

b. Where 2 or more drains connect within the circulation system, all drains minus any one in the set shall be designed to collectively convey 100 percent of the circulation flow rate.

c. The distance between the bottom of the suction outlet grate and the opening of the suction pipe shall equal or exceed at least 1.5 times the inside diameter of the suction pipe.

2. Suction outlet grates shall comply with at least one of the following requirements:

a. A single grate having at least one dimension of length, width, diagonal or diameter that is at least 36 inches.

b. Two or more grates of any size separated from other suction outlets by at least 3 feet.

3. Suction systems shall be designed so that the maximum flow rates are not exceeded under operating conditions.

4. Suction grates and covers shall be listed as conforming to ASME/ANSI A112.19.8.

5. The maximum opening of any suction grate shall prevent the passage of a ½-inch sphere.

6. a. Barriers shall be provided on all wave pool caisson walls.

b. Openings in caisson barriers shall prevent the passage of a 4-inch sphere.

7. Vacuum fittings are not permitted within public swimming pools or water attractions.

(d) *Surface skimming systems.* 1. Surface skimming systems shall be included in the design of and installed to serve all basins.

2. Surface skimming systems shall be designed and constructed to skim the basin surface when the water level is maintained within the operational parameters of the system's rim or weir device.

3. Skimmers shall be located so as to maintain effective skimming action.

4. Skimmer covers located on a walking surface shall be designed and installed to comply with all of the following requirements:

- a. The skimmer cover shall be appropriately seated.
- b. The skimmer cover shall be slip resistant.
- c. The skimmer cover shall be sufficiently strong so as to withstand normal use.
- d. The skimmer cover may not create a tripping hazard.

5. Equalizer lines shall have an anti-entrapment cover or other entrapment protection in accordance with ASME/ANSI A112.19 when suction fittings are located in the wall of a basin.

6. Where automatic skimming devices are used as the sole overflow system, at least one surface skimming device shall be provided for each 500 square feet or fraction thereof of water surface area.

7. Circulation systems shall be designed to carry 100 percent of the rated circulation volume through the skimmers.

8. The flow rate through automatic skimmers shall be no less than 3 gallons per minute per inch of skimmer weir width.

**Note:** The maximum flow rate through skimmers is determined by the ANSI/NSF 50 rating.

9. Acceptable options for surface skimming systems shall be in accordance with Table 390.14-3.

**Table 390.14-3  
Acceptable Surface Skimming Systems**

Pool Type	Acceptable Surface Skimming Systems
Swimming, whirlpools	Gutters, auto skimmers
Activity	Auto skimmers, zero-depth trench, gutters
Leisure River	Single or multiple weirs, gutters, zero-depth trench or auto skimmers
Plunge	Auto skimmers, zero-depth trench, gutters, weirs
Vortex	Skimmers are not allowed in the side area
Wave	Zero-depth trench, skimmers, gutters, perimeter devices
Zero-Depth Entry	Zero-depth trench, skimmers, gutters, perimeter devices.
Other	As approved by the department

10. When a gutter skimming system is used, the system shall be connected to a circulation system with an adequate surge capacity to permit all phases of operation.

11. a. Except as provided in subd. 11. b., a zero-depth trench shall extend continuously from within 3 feet of one wall of the basin to within 3 feet of the opposite wall of the basin.

b. Where the entire perimeter of the basin consists of a zero–depth entry, 50 percent shall be evenly–distributed zero–depth trench.

**History:** CR 08–056: cr. Register February 2009 No. 638, eff. 3–1–09; correction in (10) (a) made under s. 13.92 (4) (b) 7., Stats., Register February 2009 No. 638; correction in (1), (11) (a) 2., (13) (d) 9. made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

**SPS 390.16 Mechanical systems. (1) ELECTRICAL.** Electrical components shall comply with the requirements of ch. SPS 316.

(2) WATER HEATERS. (a) Water heating equipment shall comply with chs. SPS 364 and 365.

(b) A thermometer accurate to within plus or minus 2°F of the operating range shall be installed in the circulation piping.

(c) The thermometer required in par. (b) shall be accessible for reading.

(d) The use of a toxic solution, such as, but not limited to, heat transfer fluid in a single–wall heat exchanger, is prohibited.

(e) Water heaters and hot water storage tanks shall be equipped with temperature and pressure relief valves in accordance with ch. SPS 384.

(3) ILLUMINATION. (a) Artificial lighting shall be provided so that all areas of the pool, including the bottom, shall be visible when the pool or water attraction is used during periods of low illumination.

(b) For outdoor facilities, overhead lighting shall provide a minimum of 3 footcandles of illumination at the water surface and on the deck.

(c) For indoor facilities, overhead lighting shall provide a minimum of 10 footcandles at the water surface and on the deck.

(d) 1. Except as permitted in subd. 2., underwater lighting shall provide a minimum of ½–watt incandescent light per square foot of water surface area or equivalent.

2. If overhead lighting provides a minimum of 15 footcandles illumination at the water surface, no underwater lighting is required.

(e) For exterior facilities, areas that are designed to operate during periods of low illumination shall be provided with sufficient emergency lighting to permit evacuation of the facility.

(f) For exterior facilities, emergency lighting shall activate within 10 seconds of lighting failure.

(4) WATER SUPPLY. (a) *Water quality.* The water supply for all public swimming pools and water attractions shall meet the water quality requirements as listed in ch. SPS 382, Table 382.70–1.

**Note:** Refer to Appendix A–390.20 (12) for pertinent sections of ch. SPS 382, Table 382.70–1.

(b) *Cross connection control.* Protection of the potable water supply shall comply with s. SPS 382.41.

(c) *Makeup water quality.* Makeup water to maintain the water level in all public swimming pools and water attractions and water used as a vehicle for disinfectants or other pool chemicals, for pump priming or for other such additions, shall meet the requirements listed in ch. SPS 382, Table 382.70–1.

**Note:** Refer to Appendix A–390.20 (12) for pertinent sections of ch. SPS 382, Table 382.70–1.

(d) *Spray feature water.* Water used for spray features or water falling onto patrons shall be disinfected if supplied from a whirl–pool or wading pool basin.

(5) WASTEWATER DISPOSAL. Wastewater discharges shall be in accordance with ss. SPS 382.38 Table 382.38–1 and 382.33.

**Note:** See appendix for a reprint of Table 382.38–1.

(6) EQUIPMENT ROOM. (a) An equipment room or equipment enclosure shall be provided to serve all public swimming pools and water attractions.

1. An equipment room shall be ventilated in accordance with ch. SPS 364.

2. An equipment room shall be drained.

3. An equipment room shall be accessible for operation and maintenance of equipment.

(b) 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.

**History:** CR 08–056: cr. Register February 2009 No. 638, eff. 3–1–09; correction in (1), (2) (a), (e), (4) (a), (b), (c), (5), (6) (a) 1. made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

**SPS 390.17 Sanitizing equipment. (1) EQUIPMENT STANDARDS.** (a) Sanitizing equipment shall be certified to comply with the requirements of NSF/ANSI 50.

(b) A chemical system that provides the residual required by ch. DHS 172 shall be installed when an alternative means of disinfection is proposed.

**Note:** Alternative disinfection systems include ultraviolet light, ozone and electrolytic chlorine generation, but are not limited to those systems.

(c) Sanitizing equipment shall be capable of introducing a sufficient quantity of a U.S. EPA–approved sanitizer for normal operating procedures.

**Note:** See ch. DHS 172 for disinfectant concentration and efficacy requirements.

(d) Sanitizing equipment shall be certified by a nationally recognized testing laboratory.

(2) SANITIZING EQUIPMENT. (a) Skimmer baskets may not be used as chemical feeders.

(b) An automatic controller for controlling the sanitizing equipment shall be installed on all public swimming pools and water attractions.

(c) The automatic controller shall include a flow sensor installed so that the chemical feed pump will not operate without a return flow to disburse the chemical.

(d) The automatic controller shall be electrically interlocked with the circulation pump control circuit.

**Note:** Pool operation requirements are found in ch. DHS 172, Wis. Adm. Code.

(e) The automatic controller and circulation pump shall have separate disconnect switches.

**History:** CR 08–056: cr. Register February 2009 No. 638, eff. 3–1–09; correction in (1) (b) made under s. 13.92 (4) (b) 7., Stats., Register February 2009 No. 638.

**SPS 390.18 Safety features. (1) ROPE AND FLOAT LINES.**

(a) 1. Except as permitted in subd. 2., a rope and float line shall be provided in all basins:

a. To separate activity areas, such as plunge areas, climbing walls, pad walks and other areas where patron activity may harm others.

b. To restrict access to the caisson wall in wave pools.

c. To identify water depth greater than 5.5 feet in combination pools and activity pools.

2. Rope and float lines are not required in areas where the department determines that the installation of the rope and float line would constitute a safety hazard.

(b) For water depth, the rope and float line shall be located one foot toward the shallow end for each location where the purpose of the rope and float line is to mark a depth change.

(c) A 4–inch–wide boundary line of contrasting color shall be installed on the basin walls and floor corresponding to the location of the rope and float line.

(d) For wave generators, the rope and float line shall be located a minimum of 5 feet from the caisson wall.

(e) The rope and float lines shall be securely fastened to wall anchors.

(f) Rope and float lines shall be of sufficient size and strength so as to provide temporary support for a pool patron in the water.

(g) Rope and float lines shall be installed with limited slack so as to provide temporary support for a pool patron in the water.

(2) DEPTH MARKERS. (a) Depth markers shall be installed on all public swimming pools and water attractions that incorporate a water depth over 6 inches.

(b) Depth markers shall be installed at the maximum and minimum water depths and at all points of slope change.

(c) 1. Except as provided in subd. 2., water depth markers shall be installed around the perimeter of the basin at intervals no greater than 25 feet and at lesser intervals when indicating a change in water depth not to exceed 2 feet.

2. Water depth markers for leisure rivers shall be located every 25 feet on alternate side walls and at all entry points.

(d) 1. Depth markers shall be indicated in feet, inches or feet and inches and when abbreviated so indicated as "FT" or "IN."

2. Depth markers shall be plainly and conspicuously installed at all of the following locations:

a. On the vertical basin wall except where no portion of the basin wall is visible and above the waterline.

b. On the top of the coping or edge of the deck next to the basin.

**Note:** Additional depth markings may also be indicated in metric.

(e) When additional depth markers are indicated in metric, "meters" shall be abbreviated as "M."

(f) All water depths indicated on depth markers shall be the depth at the location of the depth marker.

(g) All depth markers installed on vertical basin walls shall be located so as to be read from the waterside.

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

(i) All depth markers installed on decks shall be of slip resistant materials.

(j) The minimum height of depth marker characters shall be 4 inches. Characters shall be clearly visible and of permanent contrasting color to the background on which applied.

(k) Depth markers for water deeper than 5 feet shall indicate the maximum basin depth.

**(3) WARNING MARKERS.** (a) Pools or water attractions having water depths of 5 feet or less shall be provided with diving prohibition markers located on the deck at intervals of no more than 25 feet.

(b) Diving prohibition markers shall be printed with the text, "No Diving."

(c) The "No Diving" text shall be at least 4 inches in height.

(d) Diving prohibition markers shall include the international "No Diving" symbol.

(e) "No Diving" text and the "No Diving" symbol shall be clearly visible and of a contrasting color to that of the marker background.

**(4) BARRIERS.** (a) Except as provided in par. (b), public swimming pools, water attractions and water attraction complexes shall be separated from surrounding property by a barrier consisting of a fence, wall or building.

(b) Independent interactive play attractions are not required to be surrounded by a barrier.

(c) A fence or wall shall be constructed so as to afford no external handholds or footholds.

(d) The barrier shall be at least 5 feet in height.

(e) Gates in the barrier shall be equipped with a self-closing, lockable closure mechanism at a height of at least 54 inches from the bottom of the gate.

(f) Fences serving as barriers shall have no opening greater than 4 inches in width or diameter.

(g) The bottom of a fence or wall shall be a maximum of 4 inches from grade.

(h) Doors in fences and walls shall be self-closing and lockable.

**(5) EMERGENCY STOP BUTTONS.** Wave action pools, vortex pools, water slides and leisure rivers shall have emergency stop buttons accessible to designated staff as outlined in a staffing plan for the purpose of stopping the propulsion system.

**Note:** See the electrical code, ch. SPS 316, for location and installation requirements.

**History:** CR 08-056; cr. Register February 2009 No. 638, eff. 3-1-09.

### SPS 390.19 Toilet room and sanitary facilities.

**(1) GENERAL REQUIREMENTS.** (a) Toilet and handwash facilities, and public drinking fountains shall be located so to be accessible by a length of paved walking surface no greater than 300 feet from the nearest rim of the most distant public swimming pool or water attraction.

(b) Showers and dressing facilities shall be provided and located on the premises and accessible by a length of paved walking surface.

**Note:** All applicable building requirements of chs. SPS 361 to 366 shall apply to the construction of bathhouses.

(c) 1. The floors of toilet rooms and dressing areas serving public swimming pools or water attractions shall have a smooth, hard, nonabsorbent, slip-resistant surface.

2. A smooth, hard, nonabsorbent surface shall extend upward on the walls at least 6 inches.

3. Junctions between walls and floors shall be coved.

4. When floor drains are installed, drain openings shall be ¼ inch or less in width or diameter.

**(2) DRAINAGE OF COVERED AREAS.** (a) Floor drains shall be installed in toilet rooms and locker rooms where sanitary fixtures are located and where the room door is adjacent to the deck or adjacent to the impervious walkway draining to the deck.

(b) Floor drain openings shall be ¼ inch or less in width or diameter.

(c) Floors shall be pitched to drain.

**(3) WALLS.** Toilet room and locker room walls shall have a smooth, hard, nonabsorbent surface to a height of at least 4 feet above the floor.

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

**(5) REQUIRED NUMBER OF SANITARY FIXTURES.** (a) The required minimum number of toilets, lavatories and showers shall be provided in accordance with Table 390.19.

(b) 1. Except as provided in subd. 2., the minimum number of drinking fountains shall be provided adjacent to the required deck in accordance with Table 390.19.

2. For bed and breakfast establishments, tourist rooming houses or private guest rooms, a source of potable drinking water shall be provided in the enclosure by a fixture installed as per ch. SPS 382 or by providing commercially bottled drinking water.

**(6) DIAPER CHANGING STATION.** (a) Except as permitted in par. (b), all toilet rooms providing the required sanitary fixtures shall be equipped with a diaper changing station.

(b) Diaper changing stations are not required in toilet rooms exclusively serving therapy pools.

**(7) SPECTATOR ACCESS.** Spectator walkways, restrooms, dressing rooms and seating areas shall be separated from pool patron required deck.

**Table 390.19**  
**Minimum Number of Sanitary Fixtures Required at**  
**Public Pools and Water Attractions**

Facility (example of location and type) <sup>a</sup>	Cumulative Area of Surface Water (in square feet)	Number of							
		Public Toilets		Public Urinals	Public Lavatories		Public Showers		Public Drinking Fountains
		F	M	M	F	M	F	M	
1. Swimming pools, wading pools and whirlpools in conjunction with sleeping or dwelling units having plumbing, except for items 2. to 5. No open swim lessons permitted. (i.e., apartment, hotels, motels, condos and mobile home parks)	< 2000	One unisex		0	One unisex		0	0	1 <sup>a</sup>
	2000 – 7500	1	1	0	1	1	1	1	1
	> 7500	See note <sup>b</sup> below for requirements.							
2. Swimming pools, wading pools and whirlpools without living units, except for items 3. to 5. Swimming pools, wading pools and whirlpools with sleeping or dwelling units where open swim or lessons are permitted and water attractions where lessons are conducted. (i.e., municipal pools and campgrounds)	< 2000	1	1	0	1	1	1	1	1
	2000 – 3999	3	1	2	1	1	2	2	1
	4000 – 5999	4	2	2	2	2	4	4	1
	6000 – 7499	4	2	2	2	2	5	5	1
	7500 – 8999	8	2	2	3	2	5	5	2
	9000 – 9999	10	2	3	4	3	6	6	2
	10000 – 12999	12	3	3	4	3	6	6	2
	13000 – 15000	14	3	4	5	4	7	7	3
>15,000	See note <sup>b</sup> below for requirements.								
3. Water attractions and water attraction complexes with sleeping or dwelling units. No open swim or lessons permitted. Use 300 sq. ft. for slides without basins (i.e., activity pools, water-slide plunge pools, leisure river or tubing pools and wave pools)	< 7500	1	1	0	1	1	1	1	1
	7500 – 9999	4	1	1	2	2	2	2	2
	10000 – 14999	8	2	2	2	2	2	2	2
	15000 – 22499	12	3	3	3	3	3	3	3
	22500 – 29999	12	3	3	3	3	3	3	3
	30000 – 37500	16	4	4	4	4	4	4	4
>37500	See note <sup>b</sup> below for requirements.								
4. Water attractions and water attraction complexes without sleeping or dwelling units. No lessons permitted. Use 300 sq. ft. for slides without basins. (i.e., activity pools, waterslide plunge pools, leisure river or tubing pools and wave pools)	< 7500	2	1	1	1	1	1	1	1
	7500 – 9999	6	2	1	2	2	2	2	2
	10000 – 14999	8	2	2	2	2	2	2	2
	15000 – 22499	12	3	3	3	3	3	3	3
	22500 – 29999	16	4	4	4	4	4	4	4
	30000 – 37500	20	5	5	5	5	5	5	5
>37500	See note <sup>b</sup> below for requirements.								
5. Splash pad (independent of any other pool or attraction)		One unisex		0	One Unisex		One rinse off shower		1
	<b>Patron Load</b>								
6. Therapy/exercise pools.	Up to 10	One Unisex							
	11 – 20	2	1	1	1	1	2	2	1
	21 – 30	2	1	1	2	2	3	3	1
	> 30	Per department approval							

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

<sup>a</sup> For pools with spectator areas, see Appendix A-390.16 regarding chs. SPS 361 to 366 that contain the requirements for sanitary facilities.

<sup>b</sup> For water attractions in excess of 37,500 sq ft., use the following additions:

- For each 7,500 sq. ft. or fraction thereof add one sanitary unit – 0.7 male water closets, 1.0 male urinal, 0.85 male lavatories, 1.0 male showers, 0.6 drinking fountains, 4.0 female water closets, 1.0 female lavatory and 1.0 female shower.

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

- For each 4,000 sq. ft. or fraction thereof, add one sanitary unit – 1.0 male water closet, 1.0 male urinal, 1.0 male lavatory, 4.0 male showers, 1.0 drinking fountain, 4 female water closets, 1.0 female lavatory, 4.0 male showers.

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

**History:** CR 08-056: cr. Register February 2009 No. 638, eff. 3-1-09; correction in (5) (a), (b) 1., 2., Table 390.19 made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

### Subchapter III — Wading Pools, Whirlpools, Interactive Play Attractions and Cold Soak Pools — Special Requirements

**SPS 390.20 Wading pools.** Wading pools shall be in compliance with the applicable requirements of ss. [SPS 390.04](#) to [390.19](#) and with this section:

(1) The maximum depth of water in a wading pool may not exceed 24 inches.

(2) The maximum depth of water at the accessible perimeter of a wading pool may not exceed 18 inches.

(3) A piping system may be used to allow a wading pool to be filled using pool water from an adjacent basin, other than a whirlpool, when the water quality meets the requirements in ch. [DHS 172](#) prior to use.

**Note:** See the appendix for filling options.

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

**History:** CR 08–056; cr. Register February 2009 No. 638, eff. 3–1–09; correction in (3) made under s. 13.92 (4) (b) 7., Stats., Register February 2009 No. 638; correction in (intro.) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

**SPS 390.21 Whirlpools and cold soak pools.** Whirlpools and cold soak pools shall be in compliance with the applicable requirements of ss. [SPS 390.04](#) to [390.19](#) and with this section:

(1) All walls within 5 feet of the whirlpool or cold soak pool shall be constructed of impervious material to a height of at least 3 feet above the deck.

(2) (a) 1. Except as provided in subd. 2. or 3., an observation window shall be provided if a whirlpool is located in a separate, enclosed room to allow the owner or operator a clear observation of the whirlpool or cold soak pool from outside the room.

2. A private guest room equipped with a telephone.

3. A whirlpool or cold soak pool room where a camera and remote observed monitor is provided.

(b) Where a camera is provided as in par. (a) 3., signage shall be installed to notify patrons of the camera's use.

(3) (a) Except as provided in par. (b), whirlpools or cold soak pools may not be located:

1. Within 11 feet of a basin where the water exceeds 5 feet in depth.

2. Within 11 feet of a basin whose water depth is 6 inches deeper than that of the whirlpool or cold soak pool.

(b) Whirlpools or cold soak pools may be located adjacent to a pool or water attraction basin if a common wall constructed in accordance with s. [SPS 390.11](#) (5) separates the two basins.

(4) The maximum water depth of a whirlpool or cold soak pool shall be 4 feet measured from the water line.

(5) If the water depth exceeds 24 inches in a whirlpool or cold soak pool, stairs shall be provided.

(a) Stairways shall be recessed and may not extend past a bench installed in the basin.

**Note:** See appendix for more information.

(b) Recessed stairways shall have a minimum unobstructed horizontal tread depth of 10 inches, with a riser height no greater than 12 inches, 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 above the whirlpool floor.

(c) The minimum width of the stairways shall be 15 inches.

(d) Handrails shall be securely mounted on each side of stairways.

(e) The leading edge of deck-mounted handrails shall be located within 3 inches horizontally measured from the vertical plan of the bottom riser.

(f) The two handrails shall be separated a maximum of 3 feet.

(6) A whirlpool water agitation system shall be separate from the water circulation system.

(7) A manually controlled, 15-minute maximum, agitation system timer shall be provided within the pool enclosure.

(8) An emergency stop shall be provided that is tied to the agitation system and circulation system.

**Note:** See the electrical code for installation and locating requirements.

(9) (a) Except as provided in par. (b), the coping around the perimeter of the whirlpool or cold soak pool may extend vertically a maximum height of 3 inches.

(b) 1. Transfer walls may extend 16 to 19 inches above the deck.

2. Transfer wall widths shall be 12 to 16 inches measured at the top of the wall.

(10) A piping system may be used to allow a whirlpool or cold soak pool to be filled using pool water from an adjacent basin, other than a whirlpool when the water quality meets the requirements in s. [DHS 172.14](#) (4) prior to use.

**History:** CR 08–056; cr. Register February 2009 No. 638, eff. 3–1–09; correction in (10) made under s. 13.92 (4) (b) 7., Stats., Register February 2009 No. 638; correction in (intro.), (3) (b) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

**SPS 390.22 Interactive play attractions.** Interactive play attractions shall be in compliance with the applicable requirements of ss. [SPS 390.04](#) to [390.19](#) and with this section.

(1) DESIGN AND MATERIALS. (a) All materials for walking surfaces on an interactive play attraction shall be slip-resistant.

(b) 1. A splash zone of an interactive play attraction shall be sloped to drain to the surge tank or pool within the same basin.

2. All exterior walking surfaces shall be sloped to drain away from the splash zone.

(2) WATER SUPPLY, PIPING, CIRCULATION AND FILTRATION. (a) The circulation system of an interactive play attraction may not be connected with the feature pump system unless otherwise approved by the department.

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

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

(d) All aboveground piping shall automatically drain. Gravity drains shall be of a capacity of at least 125 percent of the discharge.

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

(3) VEGETATION. Plants or vegetation may not be located in the splash zone area.

**History:** CR 08–056; cr. Register February 2009 No. 638, eff. 3–1–09; correction in (intro.) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

### Subchapter IV — Play Features and Slides

**SPS 390.30 Play features. (1) GENERAL.** Structures and devices not intended for patron activities such as climbing, walking and hanging shall be either designed or supervised to prevent such action.

(2) IN-WATER PLAY FEATURES. (a) In-water play features installed shall be subject to this subsection.

**Note:** Examples of in-water play features include, but are not limited to, floating boats and trucks, floatable walks, floatables, spray pad features not in conjunction with a pool or water attraction with a circulation system and other permanently installed features.

(b) 1. Floating play features may not be installed in pools with water depths of less than 36 inches.

2. a. Except as provided in subd. 2. b., a minimum 3 feet of water depth shall be maintained at least 6 feet in every direction from any tethered play feature.

b. A tethered play feature may be located within 6 feet of a wall when that portion of the wall is padded to a point 6 feet from the play feature.

**Note:** Padding need only cover the wall above the waterline.

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

**Note:** The use of jacketed chains or cables meets this requirement.

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

(e) 1. Except as permitted in subd. 2., the length and width of a tethered, in-water play feature shall not exceed 42 inches.

2. A tethered, in-water play feature may exceed 42 inches in length when the width, excluding appendages, does not exceed 24 inches.

3. The height of a tethered, in-water play feature shall not exceed 20 inches.

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

2. All deck or basin obstructions within 6 feet of a pad walk shall be padded or encased so as to protect users from abrasion, laceration or contusion.

(g) Two floatables, other than two pads within a pad walk, shall be separated by a minimum of 10 feet.

**(3) ON-DECK PLAY FEATURES.** (a) Play features permanently installed on decks shall be designed and installed to minimize injury to the user and constructed so as not to create a safety hazard.

**Note:** Examples of on-deck play features include basketball hoops, volleyball nets and other water games.

(b) Spray features may not be located so as to spray on the required deck area of a basin.

**History:** CR 08-056: cr. Register February 2009 No. 638, eff. 3-1-09.

**SPS 390.31 Slides. (1) GENERAL.** All slides installed as an appurtenance to a public swimming pool or water attraction shall be designed, manufactured and permanently installed so as to provide a safe and healthy environment for the rider and other occupants of the facility.

**Note:** For accessibility information, refer to the final accessibility guidelines for recreational facilities, Federal Register, Vol. 67, No. 170, as published Tuesday, September 3, 2002.

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

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

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

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

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

(f) On-site constructed towers, stairs, platforms and elevated decks providing access to slides shall conform to chs. SPS 361 and 362.

(g) 1. Slides installed in facilities without a lifeguard staffing plan shall occupy no more than 10 percent of the pool perimeter.

2. Slide structures shall have a maximum individual obstruction width of 20 feet.

(h) For waterslides and runout slides, all closed curved flumes shall be a minimum of 32 inches in diameter.

(i) For all other slides listed in Table 390.31-1, the slide terminus shall be designed to not allow riders to cross into the path of another rider.

**(3) INSTALLATION.** (a) All slide installations shall comply with the parameters as specified in Table 390.31-1.

**Note:** See the appendix for further explanation.

(b) Except where a lifeguard staffing plan has been approved by the department of health services, children's slide obstructions shall comply with all of the following requirements:

1. The side view of the obstruction, as viewed from any point, shall be less than 50 square feet.

2. The square footage of the obstruction shall be measured to a height of 6 feet above the water line.

3. Individual obstructions shall have at least a 10-foot horizontal separation.

4. No more than 20 percent of the pool basin shall be occupied by obstructions.

**Table 390.31-1  
Installation Parameters by Slide Type<sup>a</sup>**

Slide Type	Maximum Slide Height Measured Vertically From the Slide Entrance (in feet)	Slide Terminus Drop to Water Level (in inches)	Water Depth Allowed for Slide Installation (in feet)	Minimum Clear Space In Front of Slide Terminus and Pool Wall (in feet)	Minimum Distance from Slide Flume or Entry to Side Obstructions, unless protected (in feet)	Minimum Separation Distance Between Slides in Same Structure Measured from Side of Sliding Surface, unless protected (in feet)	Maximum Overhang Distance for Deck-mounted Slides (Slide terminus extension into pool) (in feet)
Children's slide	≤ 4 to slide terminus	≤ 6	≤ 2	≥ 7.5	≥ 4	As per manufacturer's recommendation	N/A
Pool slide	≤ 4 to deck	≤ 6	≤ 2	≥ 7.5	≥ 4	As per manufacturer's recommendation	N/A
Pool slide, discharging into water ≤ 2 feet deep	> 4 and ≤ 6 to deck	≤ 6	≤ 2	≥ 10	≥ 5	As per manufacturer's recommendation	2
Pool slide, discharging into water ≤ 2 feet deep	> 6 to deck	Not permitted.					
Pool slide, installed in water ≥ 3 feet deep	≤ 6	≤ 6	≥ 3	≥ 15	≥ 5	≥ 5	≤ 2
Pool slide, installed in water ≥ 3 feet deep	> 6	≤ 6	≥ 3	≥ 20	≥ 5	≥ 5	No maximum
Drop slide, short drop	No limitation	20 to < 30 <sup>b</sup>	3.5 to 6 <sup>b</sup>	≥ 15	≥ 5	≥ 5	No maximum
Drop slide, long drop	No limitation	30 to 60	6 to 12 <sup>b</sup>	≥ 15	≥ 5	≥ 5	No maximum
Waterslide <sup>c</sup>	No limitation	≤ 6 or as per manufacturer's recommendation	≥ 3	≥ 20	≥ 5 <sup>e</sup>	≥ 5	No maximum
Runout slide	No limitation	N/A	N/A	For deceleration area, as per manufacturer's recommendation	≥ 5 <sup>e</sup>	≥ 3	—

N/A = not applicable; ≥ = greater than or equal to; ≤ = less than or equal to.

<sup>a</sup> Slide installation as per manufacturer's requirements if more stringent. For slide types not specifically listed in this table, contact the department.

<sup>b</sup> Interpolation would be used for increasing drop and increasing depth proportionally.

<sup>c</sup> Water slides with a drop shall comply with drop slide requirements in this table.

<sup>d</sup> No minimum separation distance where slide exit prevents exiting over adjacent slide path

<sup>e</sup> Minimum distance may be reduced if slide terminus is designed and installed to restrict patron exit angle.

**(4) SLIDE FLUME WATER.** (a) Except for waterslides, water for flume lubrication shall be a maximum of 10 percent of the circulation flow.

(b) The balance tank for runout slide flume lubrication systems shall be at a minimum of 2 times the combined flow rate of the water attraction pump and of a sufficient volume to allow operation through all cycles of filtration operation.

**History:** CR 08-056; cr. Register February 2009 No. 638, eff. 3-1-09; correction in (2) (f), (i), (3) (a) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

### Subchapter V — Incorporation of Standards

**SPS 390.40 Incorporation of standards by reference.** (1) CONSENT. Pursuant to s. 227.21 (2), Stats., the attorney general has consented to the incorporation by reference of the standards listed in sub. (3).

**Note:** Copies of the adopted standards are on file in the offices of the department and the Legislative Reference Bureau. Copies of the standards may be purchased through the respective organizations listed in Tables 390.40-1 to 390.40-2.

(2) ALTERNATE STANDARDS. (a) 1. Alternate standards that are equivalent to or more stringent than the standards referenced in this code may be used in lieu of the referenced standards when

approved by the department or if written approval is issued by the department in accordance with par. (b).

2. Upon receipt of a fee as specified in ch. SPS 302 and a written request, the department may issue an approval for the use of the alternate standard.

3. The department shall review and make a determination on an application for approval within 40 business days of receipt of all forms, fees and documents required to complete the review.

(b) Determination of approval shall be based on an analysis of the alternate standard and the standard referenced in this code, prepared by a qualified party.

(c) The department may include specific conditions in issuing an approval, including an expiration date for the approval. Violations of the conditions under which an approval is issued shall constitute a violation of this code.

(d) If the department determines that the alternate standard is not equivalent to or more stringent than the referenced standard, the request for approval shall be denied in writing.

(e) The department may revoke an approval for any false statements or misrepresentations of facts on which the approval was based.

(f) The department may reexamine an approved alternate standard and issue a revised approval at any time.

(3) ADOPTION OF STANDARDS. The standards referenced in Tables 390.40-1 to 390.40-2 are hereby incorporated by reference into this chapter.

**Note:** The tables in this section provide a comprehensive listing of all of the standards adopted by reference in this code. For requirements or limitations in how these standards are to be applied, refer to the code section that requires compliance with the standard.

**Table 390.40-1**

<b>ANSI</b>		<b>American National Standards Institute, Inc. 11 W 42<sup>nd</sup> Street New York, New York 10036 Phone: (212) 642-4980 Web: <a href="http://www.ansi.org/public/std_info.html">www.ansi.org/public/std_info.html</a></b>	
<b>Standard Reference Number</b>		<b>Title</b>	
ANSI/NSF 50-2001		Circulation System Components and Related Materials for Swimming Pools, Spas/Hot Tubs	

**Table 390.40-2**

<b>ASME</b>		<b>American Society of Mechanical Engineers 3 Park Avenue New York, New York 10016-5990 Phone: (800) 843-2763 Web: <a href="http://www.asme.org/catalog/">www.asme.org/catalog/</a></b>	
<b>Standard Reference Number</b>		<b>Title</b>	
ANSI/ASME A112.19.8-2007		Suction Fittings for Use in Swimming and Wading Pools, Spas and Hot Tubs	

**History:** CR 08-056: cr. Register February 2009 No. 638, eff. 3-1-09; correction in (2) (a) 2., (3) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

## Chapter SPS 390

### APPENDIX

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The material contained in this appendix is for clarification purposes only. The notes, illustrations, etc., are numbered to correspond to the number of the rule as it appears in the text of the code.

**A-390.03 (26) Plan submittal and fees.** The following is a listing of when the department may waive submittal of pool plans and fees for the reconstruction and alteration of existing pools.

1. A disinfection system equipped with a positive displacement pump is replaced by an approved pass-through (erosion) type system<sup>a</sup> or vice versa, the replacement of a gas chlorine system with a positive displacement pump or approved pass-through feeder<sup>a</sup>.

**Note:** The installation of a gas chlorine system will require plan submittal and a fee.

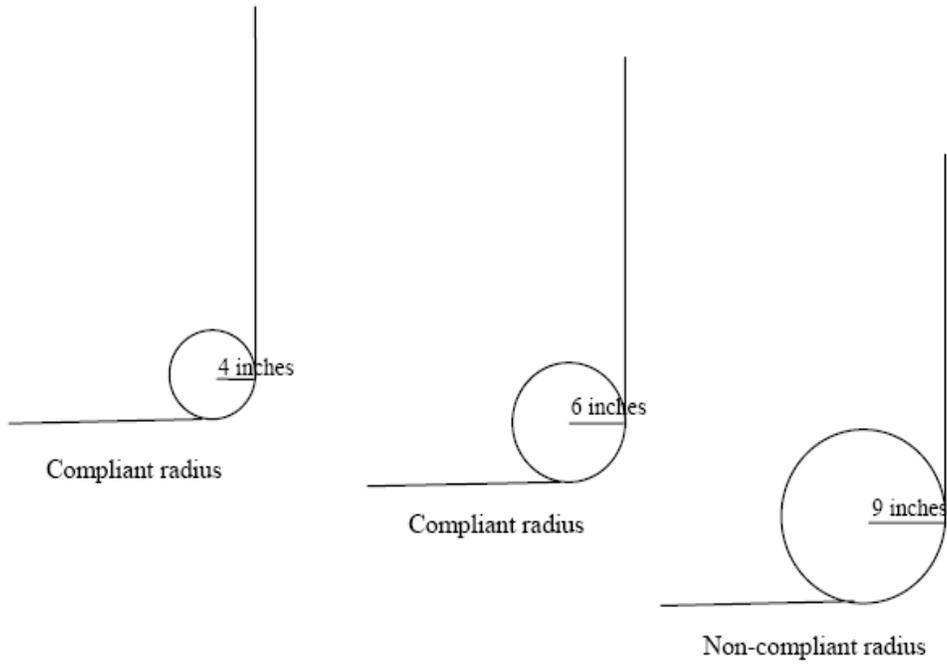
2. A circulation pump is replaced by another pump from a different manufacturer provided that the new pump is the same make and model or equivalent<sup>a</sup>.
3. A filter is replaced with an approved filter of the same make and model or equivalent<sup>a</sup>.
4. The replacement of metal piping and fittings with the same size PVC piping and fittings used to repair a small section of the circulation system (less than 10 feet).
5. A supplemental disinfecting system<sup>a</sup> is installed (e.g., Ozone, Ultraviolet Light, etc.) provided that the halogen residual is maintained as stated in ch. [DHS 172](#) and that there is no decrease in the required water circulation flow rate.
6. For the installation of a slide 6-foot or less in height, a slide structural plan review in accordance with ch. [SPS 361](#) is not required. Such slides shall meet the guidelines listed in Table 390.30-1.
7. Minor repair of basin or deck.

<sup>a</sup> All equipment under the scope of NSF 50 must be listed to comply with NSF 50.

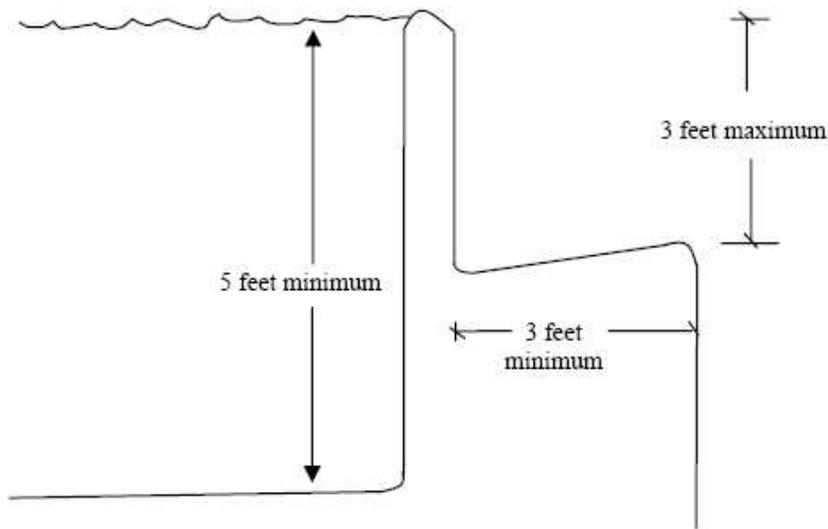
**A-390.05 (3) Authorized inspection agents.** In addition to department staff, the department has authorized representatives to conduct inspections of construction or modification of any public swimming pool or water attraction that require approval under s. [SPS 390.04](#). The cities of Madison, Milwaukee and Racine do inspections for those installations located within their jurisdiction.

**Note:** The department maintains a list on the Safety and Buildings Division Web page at <http://dsps.wi.gov/SB> that is subject to change.

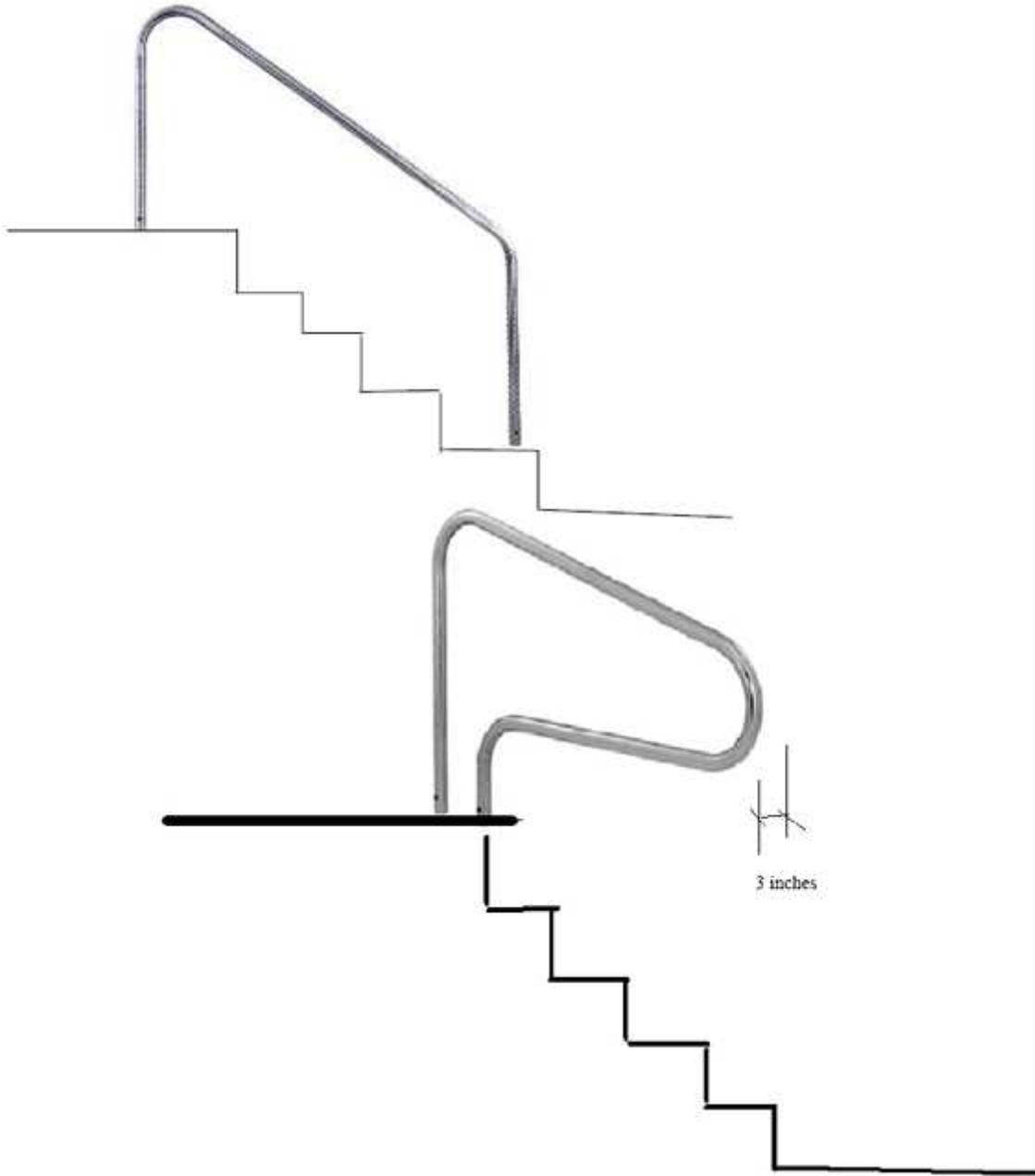
A-390.11 (8) Measuring the transitional radius between the wall and floor of a basin in less than 5 feet of water.



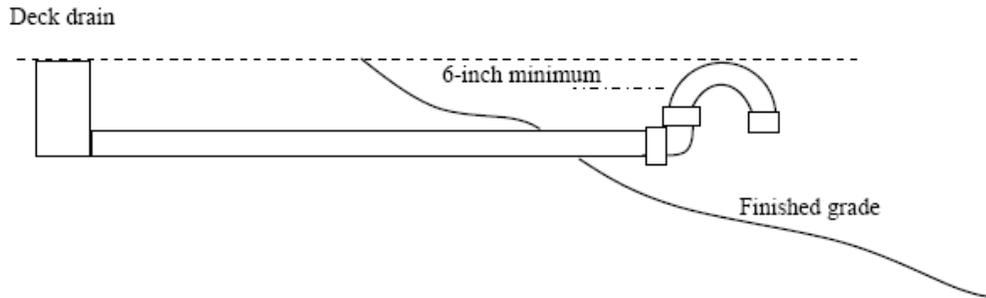
A-390.11 (10) Design of the vanishing edge basin.



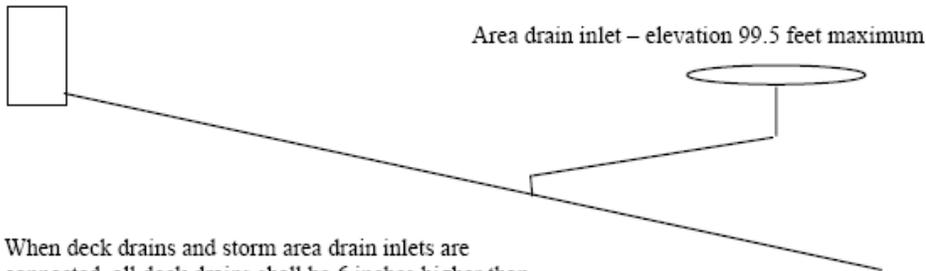
**A-390.12 (3) Deck-mounted hand-rail installations.**



A-390.13 (5) Outdoor pool deck drain storm sewer connection.



Deck drain – Elevation 100.0 feet



When deck drains and storm area drain inlets are connected, all deck drains shall be 6 inches higher than storm area drain inlets. It must be demonstrated that regardless of the location of any clogged drain, wastewater would discharge from the area drain inlet before ponding on the deck of the pool.

**A-390.14 (1) Turnover rate calculation for water slides.**

Imaginary Plunge Pool (IPP) = 6,700 gallons that requires one turnover recirculation.

(15 ft X 20 ft X 3 ft = 900 cu ft = 6,700 gallons)

The concept of the imaginary plunge pool is applied to a single waterslide or runout slide that is associated with a pool and uses water from the associated pool for its operation. When more than one waterslide or runout slide is associated with a pool, each additional runout slide or waterslide contributes 4,500 gallons to the imaginary plunge pool quantity of water.

(10 ft X 20 ft X 3 ft = 600 cu ft = 4,500 gallons)

Calculation examples using the IPP concept:

1. Addition of one waterslide or runout slide to a 70,000 gallon pool
 

70,000 gal pool =	7,600 gal 1hr IPP + 63,300 gal 6hr pool
6,700 gal ÷ 60 min =	112 gpm recirculation
63,300 gal ÷ 360 min =	<u>176</u> gpm recirculation
	288 gpm total recirculation requirement
70,000 gal ÷ 288 gpm =	4 hr turnover for addition of one waterslide or runout slide
  
2. Addition of one waterslide or runout slide to a 170,000 gallon pool
 

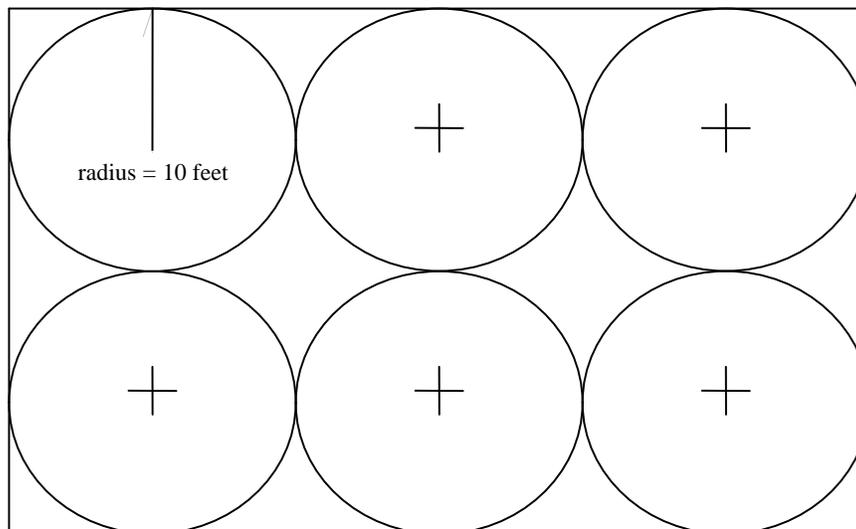
170,000 gal pool =	7,600 gal 1hr IPP + 163,300 gal 6hr pool
6,700 gal ÷ 60 min =	112 gpm recirculation
163,300 gal ÷ 360 min =	<u>454</u> gpm recirculation
	566 gpm total recirculation requirement
170,000 gal ÷ 566 gpm =	5 hr turnover for addition of one waterslide or runout slide
  
3. Addition of two waterslides or runout slides to a 170,000 gallon pool
 

170,000 gal pool =	11,200 gal 1hr IPP + 158,800 gal 6hr pool
11,200 gal ÷ 60 min =	187 gpm recirculation
158,800 gal ÷ 360 min =	<u>441</u> gpm recirculation
	628 gpm total recirculation requirement
170,000 gal ÷ 628 gpm =	4.5 hr turnover for addition of one waterslide or runout slide

## A-390.14 (13) Flows carried by inlets.

Inlet Sizes (In inches)	Flow Through Inlets (In gallons per minute)		
	5fps	10fps	20fps
3/8	1.72	3.44	6.89
1/2	3.06	6.12	12.24
5/8	4.78	9.56	19.13
3/4	6.88	13.77	27.55
7/8	9.37	18.74	37.49
1	12.24	24.48	48.97
1-1/4	19.12	38.25	76.53
1-1/2	27.54	55.08	110.19
2	48.96	97.91	195.91

## A-390.14 (13) Influence of radius illustrated.



## A-390.16 (4) Water quality requirements.

**Table 382.70-1  
(Partial)  
Plumbing Treatment Standards**

Intended Use	Plumbing Treatment Standards <sup>f</sup>
4. Swimming pool makeup water	NR 811 and 812 approved sources
5. Swimming pool fill water	DHS 172 requirements

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

**A-390.16 (5) Wastewater discharge points and requirements.****SPS 382.33 (9) (k)**

(k) *Swimming pools.* 1. The backwash and drain wastewater from a swimming pool, wading pool or whirlpool shall discharge in accordance with Table 382.38-1.

2. The discharge from deck drains serving indoor pools shall be directed to the sanitary sewer via an air-gap.

3. The discharge from deck drains serving outdoor pools shall be directed to the storm sewer by way of an air-gap or to grade.

4. The requirements for sewer connections as specified in ch. [SPS 390](#) applies to all public swimming pools.

**Note:** An alternate system approval exists to allow backwash discharge via air break.

**Table 382.38-1  
(Partial)  
Allowable Discharge Points by Fixture or Specific Use**

Use or Fixture	Allowable Discharge Points					
	POWTS <sup>a</sup>	Municipal Sanitary Sewer	Municipal Storm Sewer	Ground Surface	Combined Sanitary-Storm Sewer	Subsurface Dispersal <sup>i</sup>
11. Stormwater, groundwater, fire sprinkler test discharge and clear water	X	X <sup>g</sup>	X <sup>c</sup>	X <sup>b</sup>	X	X
13. Swimming pool or wading pool – diatomaceous earth filter backwash	X	X			X	
14. Swimming pool or wading pool – drain wastewater	X	X <sup>b</sup>	X <sup>b,c</sup>	X <sup>b,c</sup>	X <sup>b</sup>	X
15. Swimming pool or wading pool – sand filter backwash	X	X <sup>b</sup>	X <sup>b,c</sup>	X <sup>b,c</sup>	X <sup>b</sup>	X
18. Whirlpool backwash drain and wastewater	X	X	X <sup>c</sup>	X <sup>b,c</sup>	X	

a Allowed when the POWTS is designed to include designated wastewater.

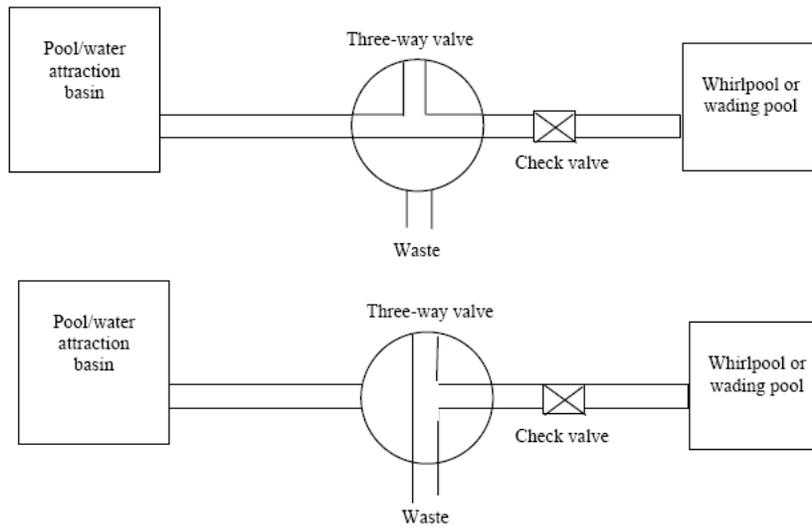
b Unless prohibited by local municipality and when no nuisance is created.

c A discharge permit may be required by the department of natural resources.

g Fifty gallons per day.

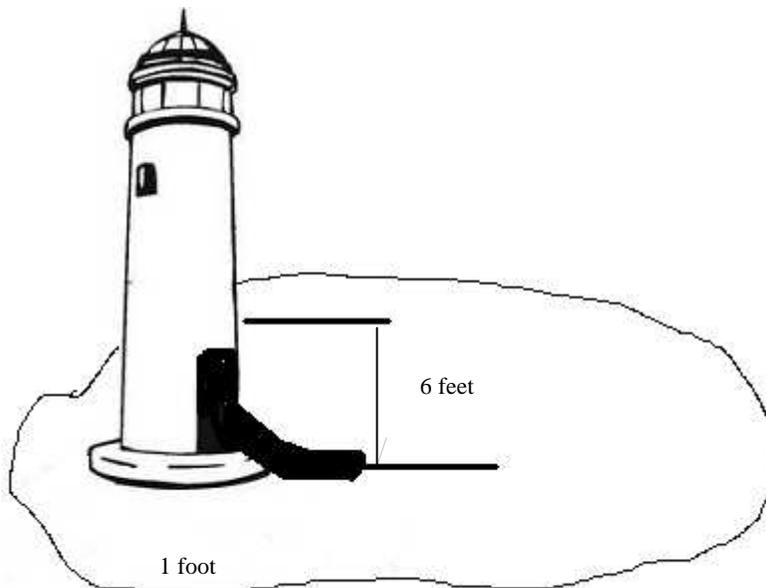
i Subsurface dispersal must comply with s. [SPS 382.365](#).

**A-390.20 Filling options for wading pools and whirlpools from other basins using a 3-way valve.**



**A-390.31 (3) Children’s slide obstructions in wading pools.**

The square footage of the obstruction between the water level to a height of 6 feet for the obstruction shown is 48 square feet. This obstruction is code compliant without a lifeguard staffing plan.



In the drawing above, the obstructed area between the water level to height of 6 feet is 3 square feet. This obstruction would be permitted in a wading pool without a lifeguard plan.