

10-144 CMR

CHAPTER 202

STATE OF MAINE

RULES RELATING TO PUBLIC POOLS AND SPAS



**DEPARTMENT OF HEALTH AND HUMAN SERVICES
MAINE CENTER FOR DISEASE CONTROL AND PREVENTION
DIVISION OF ENVIRONMENTAL HEALTH
HEALTH INSPECTION PROGRAM
11 STATE HOUSE STATION
AUGUSTA, ME 04333-0011**

LAST AMENDED: SEPTEMBER 1, 2010

**10-144
CODE OF MAINE REGULATIONS
CHAPTER 202**

**Health Inspection Program
Division of Environmental Health
Maine Center for Disease Control & Prevention
Department of Health and Human Services**

**STATE OF MAINE
RULES RELATING TO PUBLIC POOLS AND SPAS**

SUMMARY:

These rules endeavor to protect the health and safety of the people of Maine by requiring people who construct, own and/or operate public pools and public spas to submit plans showing proper construction, compliance with subsurface wastewater disposal rules, and proper sanitary facilities. These rules also set standards of operation for public pools and spas.

LAST AMENDED: September 1, 2010

AUTHORITY: 22 M.R.S.A. §2664

Nondiscrimination Notice

In accordance with Title VI of the Civil Rights Act of 1964, as amended by the civil Rights Restoration Act of 1991 (42 U.S.C. 1981, 2000e *et seq.*) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), the Age Discrimination Act of 1975, as amended (42 U.S.C. 6101 *et seq.*), Title II of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 *et seq.*), and Title IX of the Education Amendments of 1972, the Maine Department of Health and Human Services does not discriminate on the basis of sex, color, national origin, disability or age in admission or access to or treatment or employment in its programs and activities

TABLE OF CONTENTS

	PAGE:
SECTION 1. GENERAL PROVISIONS	1
A. Definitions	1
B. Scope.....	1
SECTION 2. REGISTRATION, PLANS AND CONSTRUCTION	3
A. Registration.....	3
B. Approval of Plans	4
C. Plans and Specifications	4
D. Pre-Operational Inspection	5
SECTION 3. MAINTENANCE AND OPERATION	5
A. Pool and Spa Supervision Responsibility	5
B. Clarity of Water	6
C. Chemical Operational Parameters.....	7
D. Polyhexamethylene Biguanide	7
E. Elemental Chlorine Gas	7
F. Cleaning Systems.....	7
G. Operation Records	7
SECTION 4. SUPPLEMENTAL LAYERS OF PROTECTION-OUTDOOR POOLS AND SPAS.....	8
A. Walls, Fences and Structures as Barriers	8
B. Dimensions	8
C. Pedestrian Access Gates	8
SECTION 5. ANCILLARY AREA AND FACILITIES	9
A. Bathhouse, Dressing, Shower, and Toilet Facilities (Class A and B Pools).....	9
B. Equipment and Filtration Systems (All Public Pools and Spas).....	9
C. Physical Facilities	10
D. Towels, Goggles, Signage and Miscellaneous Items (All Public Pools and Spas).....	10
SECTION 6. SPECIFIC SAFETY FEATURES AND REQUIREMENTS.....	10
A. Handholds - Public Pools.....	10
B. Rope and Float Line - Inground Public Pools Only.....	10
C. Depth Markers - Inground Public Pools Only	11
D. Lifesaving Equipment for Public Pools and Spas.....	11
E. Entrapment Prevention for Public Pools and Spas	12
F. Color Coding and Labeling for Public Pools and Spas.....	13
G. Valve Labeling for Public Pools and Spas.....	13
H. Rules Posted.....	13
SECTION 7. HYGIENIC CONSIDERATIONS FOR PUBLIC POOLS AND SPAS	13
A. Common Towels, Cups, Etc.	13
B. Pollution of Pool or Spa Prohibited	13
C. Health of Employees and Patrons	14

	PAGE:
SECTION 8. WATER SUPPLY AND WASTE WATER DISPOSAL	14
A. Pool Water Supply	14
B. Public Pool or Spa Water Disposal	15
C. Backwash Disposal	15
SECTION 9. PUBLIC SPA SPECIAL REQUIREMENTS	15
A. Aeration System	15
B. Maximum Operating Temperature	15
C. Spa Use Parameters	15
D. Maintenance and Operation	16
SECTION 10. INSPECTION AND CLOSURE	16
A. Inspection	16
B. Pool Closure	17
SECTION 11. VARIANCES AND APPEALS	17
A. Variances	17
B. Appeals	17
APPENDIX A. CHEMICAL OPERATIONAL PARAMETERS	18
APPENDIX B. WATER REPLACEMENT STANDARDS	25
APPENDIX C. RULES POSTED	26
APPENDIX D. OPERATING RECORDS	27
APPENDIX E. DHHS PUBLIC POOL OR SPA REGISTRATION FORM	28

SECTION 1. GENERAL PROVISIONS

A. Summary

These rules endeavor to protect the health and safety of the people of Maine by requiring people who construct, own and/or operate public pools and public spas to submit plans showing proper construction, compliance with subsurface wastewater disposal rules, and proper sanitary facilities. These rules also set standards of operation for public pools and spas.

B. Definitions

1. **Backwash:** “Backwash” refers to the water generated from the process of cleaning the filter medium and/or elements by the reverse flow of water through the filter.
2. **Certified pool operator:** “Certified pool operator” means an individual who has taken and passed a) the National Swimming Pool Foundation’s Certified Pool-Spa Operator® (CPO) course; or b) the Pool & Hot Tub Council of Canada’s Professional Pool and Spa Operator (PPSO) course.
3. **Critical Violation:** A critical violation is a violation of these rules which presents a clear risk of contamination, illness, injury or environmental health hazard. A critical violation is denoted in these rules by the letter “C.”
4. **Department:** "Department" means the Department of Health and Human Services.
5. **Fence:** "Fence" means a good quality fence or wall, not less than 4 feet in height above ground surface and of a character to exclude children. The fence shall be so constructed as not to have openings, holes or gaps larger than 4 square inches, except for fences constructed of vertical posts or louvers, in which case, the openings shall not be greater than 4 inches in width with no horizontal members between the top and bottom plates. Doors and gates are excluded from the minimum dimension requirements.
6. **Medical facility pool or medical facility spa:** “Medical facility pool or medical facility spa” means a pool or spa under the direct supervision and control of licensed medical personnel.
7. **Operator:** “Operator” means the person responsible for the operation and/or maintenance of a pool or spa.
8. **Pedestrian access gate:** "Pedestrian access gate" means a gate in a barrier surrounding a pool or spa.
9. **Pool:** “Pool” means a basin, chamber or tank constructed of smooth, impervious, and easily cleaned materials, located either indoors or outdoors; in-ground, above-ground or on-ground; provided with a controlled water supply and containing an artificial body of water, used for swimming, recreational bathing, or wading. ”Pool” includes any related equipment, structures, areas and enclosures that are intended for the use of persons using or operating the pool, including equipment, dressing lockers, showers and toilet rooms.

10. **Pool event:** "Pool event" means any sports competition, performance or gathering, where more than an average attendance is expected at the pool.
11. **Pool water:** "Pool water" means any water in a pool or spa.
12. **Pool depth:** "Pool depth" means the distance between the floor of the pool and the normal operating water level.
13. **Public pool:** "Public pool" means any constructed or prefabricated pool, other than a residential pool or medical facility pool that is intended to be used for swimming, recreational bathing, or wading, and is operated by an owner, lessee, tenant, or concessionaire or by a person licensed by the Department, regardless of whether a fee is charged for use. A pool on the premises of a child care facility that is licensed or required to be licensed under 22 M.R.S.A. §8301-A is a public pool.

Public pools are classified as follows:

- a. Class A Pools – Class A pools are intended for use for accredited competitive aquatic events. The pool may also be used for recreation.
 - b. Class B Pools – Class B pools are intended for public recreational swimming not otherwise classified.
 - c. Class C Pools – Class C pools are intended for use by paid guests and patrons of licensed lodging establishments and clients of Child Care Facilities licensed pursuant to 22 MRSA §8301-A (B).
 - d. Class D Pools – Class D pools are operated for special purposes, including, but not limited to, wave action pools, activity pools, catch pools, leisure rivers, vortex pools, and sand bottom pools.
 - e. Class F Pools – Class F pools are wading pools.
14. **Public spa:** "Public spa" means any constructed spa other than a residential spa or medical facility spa.
 15. **Public water system:** "Public water system" means any publicly or privately owned system of pipes or other constructed conveyances, structures and facilities through which water is obtained for, or sold, furnished or distributed to the public for human consumption, if such a system has at least 15 service connections, regularly serves an average of at least 25 individuals daily, for at least 60 days out of the year or bottles water for sale.
 16. **Residential spa:** "Residential spa" means any constructed spa, permanently installed or portable, that is used in connection with a single or multi-family residence, used by tenants of apartment buildings, owners of condominiums, or members of property owners associations and available only to these residents and their private guests.

17. **Residential swimming pool:** "Residential swimming pool" means any constructed pool that is used for swimming in connection with a single or multi-family residence, used by tenants of apartment buildings; owners of condominiums; and members of property owners associations and available only to these residents and their private guests. A pool on the premises of a family child care provider who is certified or required to be certified under 22 M.R.S.A. §8301-A, and makes the pool inaccessible to the supervised children, is a residential pool.
18. **Sanitizer:** "Sanitizer" means an agent (disinfectant) that destroys microorganisms that might carry disease.
19. **Spa:** "Spa" means a small recreational water vessel, usually designed for "soaking", as opposed to swimming, and designed for therapeutic or nontherapeutic use that is not drained, cleaned or refilled for each individual. It may include, but is not limited to, hydrojet circulation, hot water, cold water, mineral baths, air induction bubbles or any combination thereof. "Spa" includes, but is not limited to, a therapeutic pool, hydrotherapy pool, whirlpool, hot spa, and hot tub and contains a smaller water volume than public pools.
20. **Wading pool:** "Wading pool " means a pool with a maximum water depth of 24 inches. The water depth at the perimeter must not exceed 18 inches. Water depths may be reduced from the above maximums and brought to zero at the most shallow point.

C. Scope

These Rules do not apply to the following pools and spas: medical facility pools, medical facility spas, physical therapy pools, and non-permanent wading pools on the premises of Family Child Care Providers licensed, pursuant to 22 M.R.S.A. §8301-A and 10-148 CMR 32.

SECTION 2. REGISTRATION, PLANS AND CONSTRUCTION

A. Registration

1. No city, town, village, plantation, institution, school, civic club, organization, person, firm or corporation, may operate or maintain any public pool or spa without first having registered the same with the Department. Forms for this purpose are available from the Department.
2. Any residential pool or spa located on the premises of a lodging establishment licensed by the Department and not intended for the use of the facility guests or clients must be clearly posted as not available for public use.

B. Approval of Plans

1. No city, town, village, plantation, institution, school, civic club, organization, person, firm, or corporation may construct any public pool or spa, or make changes in any already built or in the appurtenances thereof, until the plans have

been submitted to, and approval received from, the Department. Applicable standards for all new and modified public pools and spas are listed in Sections 2(B)(2) through 2(B)(6). Copies of the standards are available for inspection at the Department offices during normal business hours.

2. Minimum standards for in-ground public pool design and operation (Class A, B, C, and F) are those set forth by the *American National Standard for Public Swimming Pools* (ANSI/NSPI-1 2003), as amended.
3. Minimum standards for above-ground or on-ground public pool design and operation (Class C) are those set forth by the *American National Standard for Aboveground/ Onground Residential Swimming Pools* (ANSI/NSPI-4 1999), as amended.
4. Minimum standards for public spa design and operation are those set forth by the *American National Standard for Public Spas* (ANSI/NSPI-2 1999), as amended.
5. Minimum standards for all Class D pool design and operation are those set forth by the *American National Standard for Aquatic Recreation Facilities* (ANSI/IAF-9 2005), as amended.
6. All Class A, B, C, and F public pools, and all public spas, must comply with the specifications in Section 6(E).

C. Plans and Specifications

1. A person proposing to construct, reconstruct or alter a public pool or spa, auxiliary structure or equipment must submit legible plans and specifications to the Department for review and written approval, prior to commencing the work, and in advance of the issuance of any building, plumbing, subsurface wastewater disposal, or electrical permit.
2. Plans submitted for approval pursuant to this section must be drawn to a scale of 1/4 inch equals 1 foot, except that plans for public spas must be drawn to a scale of 1 inch equals 1 foot.
3. The Department may require the submission of such additional information as may be required, to determine the compliance of plans and specifications submitted for approval.
4. Any public pool or spa located within the watershed of a spring, lake, stream or other body of water used as a public water system source, must be so operated as not to compromise the water quality supplied.
5. Within thirty (30) days of the receipt of a complete application consisting of plans and specifications, the Department must notify the person submitting same of their approval or disapproval. A pre-operation inspection is required by the Department. The Department must be notified at least 15 days in advance of placing the pool or spa in operation, to allow for inspection and approval.

6. When submitting an application for review of a public pool or spa to the Department, the applicant and/or designer must include the following for a complete application:
 - a. Plan(s) of the pool or spa, showing depths, area, and safety features, complying with the appropriate standards referenced in Section 2(B) of these Rules;
 - b. Plans and manufacturer's specifications for pumps, filtering, and sanitizing equipment, including all interconnecting piping and control valves;
 - c. A completed HHE 200 Form (Subsurface Waste Water Disposal System Application), if (a) a public waste water disposal system is not utilized; and (b) the pool filtration system generates backwash wastes;
 - d. A completed Department Public Pool or Spa Registration Form, (see Appendix E of these Rules); and
 - e. A review fee of \$15 is required. A check or money order made payable to "Treasurer, State of Maine", must be submitted.
7. Records. The Department must retain one copy of the plans and specifications submitted for approval. (See Section 2 (C)(6) above).

D. Pre-Operational Inspection

1. A pre-operation inspection is required, as specified in Section 2(C)(5) of these Rules. The Department must be notified at least 15 days in advance of placing the public pool or spa in operation, to allow for inspection and approval.
2. No public pool or spa requiring a pre-operation inspection may be placed in use without the approval of the Department.

SECTION 3. MAINTENANCE AND OPERATION

A. Pool and Spa Supervision Responsibility

1. No public pool or spa may be used or presented as available for use, unless maintained and operated in compliance with all of the requirements of subsections 3 (A) (2) – (4), and the appropriate standards listed in subsections 2(B)(2) – (6).
2. Every public pool or spa must retain a pool supervisor who is fully capable of, and shall assume responsibility for, compliance with all requirements relating to pool operation, maintenance and safety of bathers. This person shall qualify as one of the following: (a) a Certified Pool-Spa Operator® (CPO), certified by the National Swimming Pool Foundation; (b) a Professional Pool and Spa Operator (PPSO), certified by the Pool & Hot Tub Council of Canada; or (c) have equivalent training acceptable to the Department. (C)

- a. The pool supervisor is responsible for training the onsite personnel in the basic operation of the pool, including, but not limited to, water testing and record keeping, water clarity, pool rules, hours of operation, eligible patrons, and pool closure procedures.
 - b. Only the pool supervisor may handle any sanitizer (chlorine, bromine, etc.).
 - c. If the owner is using a pool management service, this service must visit the site at least once per week and is responsible for adding chemicals and training the on-site personnel in Section 3(A)(2). This weekly visit does not replace the requirement for the pool supervisor's duties within this Section.
3. Routine (e.g., daily and weekly) operating procedures must be permanently posted in a location accessible to, and frequented by, the operator. They must also be available for viewing by representatives from the Department.(C)
 4. Manufacturers' instructions for operation and maintenance of mechanical and electrical equipment must be kept available for the operator and representatives from the Department. (C)
 5. Chemical storage areas must be locked at all times.

B. Clarity of Water

1. The recirculation and purification system must be operated and maintained, so as to keep the public pool or spa water clean and clear. The pool and spa water circulation system must operate continuously for 24 hours per day, unless the pool or spa is closed for maintenance or repair for the season, in order to ensure proper water clarity and chemical distribution. Under no circumstances may the public pool or spa be used if the main drain is not clearly visible from the deck. Any pool or spa closed by the Department must not be reopened until the water is clean and clear, and upon specific written approval of the Department. (C)
2. The water of every wading pool must be kept sufficiently clear, so that the bottom of the wading pool is visible at all times. (C)

C. Chemical Operational Parameters

The public pool or spa water must be continuously disinfected by a sanitizer that imparts an easily measured residual. The sanitizer used must be subject to field testing procedures that are simple and accurate. Sanitizers listed in Appendix A of these Rules must be maintained within the following ranges: (C)

Sanitizer Levels for public pools and spas:

1. If chlorine is used for sanitization, the free chlorine residual should be maintained between 1.0 and 3.0 ppm in public pools and 4.0 –5.0 ppm in public spas. The maximum free chlorine residual must not exceed 4.0 ppm for public

pools and 8.0 ppm for public spas. Stabilized chlorine use is prohibited in indoor pools. See also Appendix A(1).

2. If bromine is used for sanitization, the bromine residual shall be maintained between 3.0 –5.0 ppm in public pools and 6.0-8.0 ppm in public spas. The maximum bromine residual must not exceed 7.0 ppm for public pools and 10.0 ppm for public spas.
3. pH must be maintained between 7.2 and 7.8. See Appendix A for additional information.

D. Polyhexamethylene Biguanide

Polyhexamethylene biguanide (PHMB) for sanitation is prohibited in commercial public pools and spas. (C)

E. Elemental Chlorine Gas

Elemental chlorine gas for sanitation is prohibited in commercial public pools and spas. (C)

F. Cleaning Systems

A built-in or portable-type vacuum cleaning system must be provided, that is capable of removing sediment from all parts of the public pool floor. When jet-type units are used, they must be provided with approved type backflow protection for the water system. (C)

G. Operation Records

1. The operator of each public pool or spa open for use must keep a record of information regarding operation, including readings of sanitizer residual, and pH at least 3 times per day or more, (one of which is the result of a manual reading). If using chlorine as a sanitizer, combined chlorine must be collected and maintenance procedures documented, (such as cleaning of filters and quantity and types of chemicals used) once per day. Total alkalinity, calcium hardness and cyanuric acid (if used) must be tested once per week. Data collected must be maintained for at least 1 year, and must be available, upon Department request. (C)
2. Appropriate test kits for measuring pH and concentration of the sanitizer used must be provided at each public pool and/or spa. The test kit must be a DPD test kit with the FAS-DPD preferred. The test kit must be capable of testing free and combined chlorine, pH, total alkalinity, calcium hardness and cyanuric acid (if used). Reagents must not be over 1 year old. OTO kits and test strips are not permitted. (C)
3. During public pool events, the operator must increase supervision and monitoring of sanitizer residual, pH, and maintenance, beyond typical daily operation. (C)
4. Material Safety Data Sheets (MSDS) must be completed and available for inspection by the Department.

SECTION 4. SUPPLEMENTAL LAYERS OF PROTECTION - OUTDOOR POOLS AND SPAS**A. Walls, Fences and Structures as Barriers**

Barrier walls and fences may be stand-alone walls and fences or may be in combination with a structural pool, spa or hot tub walls, or a building/dwelling wall, to form the barrier around the public pool or spa. (C)

B. Dimensions

The top of the wall/fence must be at least 48 inches (1.2 m) above grade and measured on the side of the wall/fence which faces away from the public pool or spa. The maximum vertical clearance between grade and the bottom of the wall/fence must be 4 inches (102 mm). (C)

C. Pedestrian Access Gates

1. Access gates in the barrier must be self-closing, self-latching, accommodate a locking device and must open outward away from the public pool or spa, except when natural topography or other conditions dictate that it open inward. (C)

Release of the latch on the self-latching device for the gate must be activated by either of the following standards:

- a. at a height no less than 54 inches (1,372 mm) above grade for chain-link access gates and at a height no less than 54 inches (1,372 mm) above the horizontal bottom rail of a picket/ornamental access gate; or
 - b. on the public pool or spa side of the gate, at a distance no less than 3 inches (76 mm) below the top of the gate, if the gate and barrier have no opening greater than a half-inch within 18 inches of the release mechanism. Where a self-latching device is also self-locking and is opened by means of a key, electronic opener, or integral combination lock, it may be located at any height on the gate, so long as it does not negate the function of the gate.
2. Other Access Gates
 - a. Gates other than a pedestrian access gate need not have a self-closing, self-latching feature, but must be provided with a means to secure the gate when it is not in use.
 - b. A building wall with 3-side fencing as a barrier may be used to form the barrier or part of the barrier.

SECTION 5. ANCILLARY AREA AND FACILITIES**A. Bathhouse, Dressing, Shower, and Toilet Facilities (Class A and B Pools)**

1. A bath house with dressing room, shower and toilet facility must be located within 500 feet of the pool, except that shower and dressing facilities may not be required when bathers have access to such facilities in adjacent living quarters. Toilet facilities must be provided for users of a public Class A or B pool.
2. Dressing and sanitary facilities must meet handicapped accessibility standards.
3. Dressing and sanitary facilities must be provided with separations for each sex, with no interconnection. The rooms must be well-lit, drained, ventilated, and of good construction, with impervious materials. They must be developed and planned, so that good sanitation can be maintained throughout the building at all times. This requirement does not prohibit the facility from supplying a family changing room in addition to rooms for each sex.

B. Equipment and Filtration Systems (All Public Pools and Spas)

1. Pool data sheets must be posted in the pump room and must include date of construction, dimension, flow rate, turnover rate, size, gallons, and name of pool/spa.
2. Flow Meters must be either a filter-effluent flow meter or a meter that is an accurate representation of flow in the system.
3. Disinfectant Feeders must be installed and functioning, in order to permit adequate disinfection of all pool water. Supplemental feeding of sanitizers must be in accordance with label directions and must not be distributed through the skimmer basket(s) or directly into the pool or spa, when the pool or spa is in use. Undissolved sanitizers are forbidden in the skimmer basket when the pool or spa is in use. Stabilized chlorine is not permitted for indoor pools. (See Appendix A(4)).
4. Water circulation- All swimming, wading and special purpose pools must be equipped and operated with a system for recirculation and purification of the pool water.
 - a. The overall re-circulation and purification system must be so designed and constructed that the entire volume of the pool or spa can be recirculated and filtered as follows:
 - i. Swimming pools- once every 6 hours;
 - ii. Wading pools- once every hour;
 - iii. Spas- once every half- hour; and
 - iv. Water slide flumes- once every hour.
 - b. Grandfathering may not apply when water circulation and purification systems fail to prevent a significant compromise in water quality.

C. Physical Facilities

All public pool and spa physical facilities must be maintained in a safe and sanitary manner.

D. Towels, Goggles, Signage and Miscellaneous Items (All Public Pools and Spas)

1. Towels furnished by the management must be laundered clean and sanitized after each usage on the premises or through a laundry service.
2. Goggles and other miscellaneous items furnished by management must be sanitized after each usage.
3. A sign must be posted instructing users of the pool or spa to shower prior to entering the public pool or spa.

SECTION 6. SPECIFIC SAFETY FEATURES AND REQUIREMENTS**A. Handholds – Public Pools**

1. A public pool must be provided with a suitable handhold around its perimeter in areas where depths exceed 3 feet, 6 inches. Handholds must be provided no further apart than 4 feet and must consist of any 1 of (or a combination of) the items listed in Section 6 (A) (1)(a) – (c). (C)
 - a. Coping, ledge, or deck along the immediate top edge of the pool which provides a slip-resisting surface of at least 4 inches minimum horizontal width and located at, or not more than, 12 inches above the waterline; or
 - b. Ladders, stairs, or seat ledges; or
 - c. A secured rope or railing placed at, or not more than, 12 inches above the waterline.

B. Rope and Float Line – Inground Public Pools Only (C)

1. A rope and float line must be provided between 1 and 2 feet of the shallow side of the break in grade between the shallow and deep portions of the pool, with its position marked with visible floats at not greater than 7-foot intervals. This line may be removed for swim meets, lap swimming, aerobics, etc.
2. The rope and float line must be securely fastened to wall anchors of corrosion resisting materials and of the type which must be recessed or have no projection that will constitute a hazard when the line is removed.
3. The line must be of sufficient size and strength to offer a good handhold and support loads normally imposed by users.

C. Depth Markers – Inground Public Pools Only (C)

1. Depth of water in feet must be plainly and conspicuously marked at, or above, the waterline on the vertical pool wall and on the top of the coping or edge of the deck or walk next to the pool.
2. Depth markers on the vertical pool wall must be positioned to be read from the water side.
3. Depth markers on the deck must be within 18 inches of the water edge and positioned to be read while standing on the deck facing the water.
4. Depth markers must be slip-resisting. Depth markers must be installed at the maximum and minimum water depths and at all points of slope change. Spacing must be at distances not greater than 25 feet.
5. Depth markers must be arranged uniformly on both sides and both ends of the pool.
6. Depth markers on irregularly shaped pools must designate depths at all major deviations in shape, as well as conform to Section 6 (C)(1) – (7).
7. Depth markers must have a 4-inch minimum height. Numbers must be of contrasting color to the background on which they are applied, and the color must be of a permanent nature.
8. The edges of steps, ledges or seats must have a 4-inch stripe of contrasting color. This stripe should be 2 inches on the thread and 2 inches on the riser.
9. The transition point of a new pool from the shallow area to the deep area must be visually set apart with a 4-inch marked line of contrasting color.

D. Lifesaving Equipment for Public Pools and Spas (C)

1. Public pools must have lifesaving equipment conspicuously and conveniently on hand at all times by the side of the pool.
2. Each pool must be equipped with a light, strong pole not less than 12 feet long, including a body hook.
3. Each pool must be equipped with a minimum $\frac{1}{4}$ inch diameter throwing rope as long as 1 and one-half times the maximum width of the pool, or 50 feet, whichever is less, to which has been firmly attached a US Coast Guard-approved ring buoy, with an outside diameter of 15 inches or greater.
4. The location of the nearest telephone must be posted with dialing instructions in the immediate vicinity of the public pool or spa. This telephone must have posted names and phone numbers of the nearest available police, fire, ambulance service and/or rescue unit.

5. A first aid kit including barrier protection (gloves and rescue breathing), must be available at all times for public pools and spas. Barrier precautions such as gloves and rescue breathing must be included.
6. Every public pool and spa without a lifeguard must post a conspicuous sign near the pool or spa, stating that there is no lifeguard on duty and that all children must be supervised in the pool or spa area.

E. Entrapment Prevention for Public Pools and Spas (C)

1. If the suction outlet system, (such as a filtration system, booster system, automatic cleaning system, etc.), has a single suction outlet, or multiple suction outlets which can be isolated by valves, each suction outlet must protect against user entrapment by a suction outlet cover/grate that has been tested, certified, and listed by a nationally recognized testing laboratory, in accordance with the most recent edition of *Suction Fittings for Swimming and Wading Pools, Spas, Hot Tubs and Whirlpool Bathtub Appliances* (ANSI/ASME A112.19.8).
2. In addition to the requirements of Section 6(E)(1), public pools and spas with a single suction outlet, or multiple suction outlets that can be isolated by valves, must have a safety vacuum release system (SVRS) that has been tested, certified, and listed for that purpose by a nationally recognized testing laboratory as conforming to *Manufactured Safety Vacuum Release Systems (SVRS) for residential and commercial swimming pools, spa, hot tub and wading pool suction systems* (ANSI/ASME A112.19.17) or *Standard Specifications for Manufactured Safety Vacuum Release Systems (SVRS) for swimming pools, spas, and hot tubs* (ASTM F 2387-04). Other allowable approaches include a suction-limiting vent system, a gravity drainage system, and an automatic pump shut-off system, as referenced in the Virginia Graeme Baker Pool and Spa Safety Act.
3. Main drains in pools and existing, or under construction at the time of the effective date of these Rules, must not be disabled. Pools and spas constructed after the effective date of these Rules that have no main drain as part of the plan must show proof of proper and complete recalculation of filtered and sanitized water. Pools with main drains as part of the plans must have at least two main drains separated by at least 3 feet on center.

F. Color Coding and Labeling for Public Pools and Spas

All exposed piping must be color-coded in accordance with the following table:

PIPING	COLOR CODE	WASTE LINES	COLOR CODE
Potable water lines	Dark blue	Backwash waste	Dark brown
Filtered water	Light blue	Sewer (sewer or other)	Dark gray
Skimmer or gutter return	Green	Deck drains	Light brown
Main drain	Black		
PIPING	COLOR CODE		
Alum	Orange		
Soda ash	White		
Acid	Pink		

Where two colors do not have sufficient contrast to easily differentiate between them, a 6-inch band of contrasting color should be colored on 1 pipe at approximately 30-inch intervals. The name of the liquid, and arrows indicating direction of flow, should be shown on the pipe.

G. Valve Labeling for Public Pools and Spas

1. Valves must be tagged with numbers affixed to the valves. These tags must be metal or rigid plastic, permanently attached to the valve with chain or other means, so the valve will remain marked throughout the life of the valve.
2. Procedures and instructions for system operations must reference valves by their respective numbers.

H. Rules Posted

1. Facility rules for the safe use of the pool or spa must be posted in a conspicuous place. See Appendix C for sample wording for the posting of such rules.

SECTION 7. HYGIENIC CONSIDERATIONS FOR PUBLIC POOLS AND SPAS

A. Common Towels, Cups, Etc.

1. The use of shared towels, drinking cups, combs, hair brushes or other common toilet articles is prohibited.
2. No glass is allowed into the pool or spa area, including the deck area.

B. Pollution of Pool or Spa Prohibited

1. Urinating, discharge of fecal matter, vomiting, bleeding, expectorating or blowing the nose in any public pool or spa is prohibited. The Department requires posting of notices directing the bathers to make use of the toilets and showers before entering the pool or spa.
2. If a formed fecal stool, vomiting, or bleeding accident occurs, the public pool or spa must be closed, with as much of the fecal material removed as possible (if the accident involved fecal material), and the free chlorine residual raised to a minimum of 2.0 ppm, if necessary, with the pH maintained between 7.2 and 7.5 for a minimum of thirty (30) minutes. The water must be continuously filtered during this period. The pool may then be reopened after all the procedures in Section 7(B)(2) are followed. (C).
3. If a diarrheal fecal accident occurs, the public pool or spa must be closed, as much of the fecal material removed as possible, the free chlorine residual raised to 20 ppm, and the pH maintained between 7.2 and 7.5 for a minimum of eight (8) hours. The filtration system must be operated continuously during this period and backwashed to waste at the end of 8 hours. After a minimum of 8 hours, and

the chlorine level is within the parameters of Appendix A, then the pool or spa may be reopened. (C).

4. For all fecal, vomiting, or bleeding accidents, an event log must be recorded. The log must include, at minimum, the following information: date and time of event; whether formed stool, vomiting, bleeding or diarrhea existed; free chlorine residual at time of event; free chlorine residual and pH at time of pool reopening, and a description of the procedures followed during the event, including the process used to increase the free chlorine residual, if necessary. (C).

C. Health of Employees and Patrons

1. No person ill with vomiting or diarrhea may use any public pool or spa.
2. No person with infectious skin rashes may use any public pool or spa.
3. Co-use of any public pool or spa by humans and animals is prohibited.
4. All infants and children who are not toilet trained must wear rubber swim pants while in the pool.

SECTION 8. WATER SUPPLY AND WASTE WATER DISPOSAL

A. Pool Water Supply

1. The pool water supply must be adequate, of a safe, sanitary quality, and from a public water system or private source approved by the Department. (C).
2. All portions of the water distribution system serving the public pool or spa must be protected against backflow and back-siphonage. Water introduced into the public pool or spa, either directly or to the recirculation system, must be supplied through an air gap or by another method approved by the local plumbing inspector (LPI) or the Department. (C).

B. Public Pool or Spa Water Disposal

1. The operator must obtain permission from the Department of Environmental Protection (DEP) or other proper authority, before any pool water is disposed of in a public sewer system, on any surface or into any body of water. (C)

C. Backwash Disposal

1. The operator must obtain permission from the proper authority before any backwash is disposed of in a public sewer system. (C)
2. No backwash may be disposed of on any surface or in any body of water. (C)

3. Backwash may be discharged in an approved subsurface wastewater disposal system sized, designed and installed in conformance with the Maine Subsurface Waste Water Disposal Rules, 10-144 CMR 241. (C)
4. Backwash water must enter the approved disposal system through an air gap that is at least 1.5 times the backwash pipe diameter, or other LPI or Department-approved method to prevent backflow.

SECTION 9. PUBLIC SPA SPECIAL REQUIREMENTS

A. Aeration System

A public spa aeration and/or jet system must be completely separate from its filtration system and must not be interconnected with any non-spa pool. (C).

B. Maximum Operating Temperature

The maximum allowable water temperature is 104 °F for a public spa. A public spa must be equipped with an accurate thermometer designed for pool use. (C).

C. Spa Use Parameters (C)

1. A precaution sign must be provided with the public spa use parameters listed below. The spa use parameters sign must be mounted by the operator in a prominent location. Lettering must be at least one (1) inch in height and be of contrasting color to the background on which they are applied.
 - Risk of Fetus Damage - Hot water exposure limitations vary from person to person. Pregnant women and small children should not use spa prior to medical consultation.
 - Risk of Drowning - Persons suffering from heart disease, diabetes, high or low blood pressure and other health problems should not enter the spa without prior medical consultation and permission from their doctor.
 - Risk of Drowning - Do not use the spa while under the influence of alcohol, narcotics, or other drugs that cause sleepiness, drowsiness, or raise/lower blood pressure.
 - Risk of Child Drowning - Unsupervised use by children is prohibited.
 - Risk of Injury - Before entering the spa, check spa temperature before each use. The spa temperature must not exceed 104 °F.
 - Risk of Drowning - Use caution when bathing alone. Overexposure to hot water may cause nausea, dizziness, and fainting.
 - Risk of Drowning - Do not use the spa while it is being drained.

- Risk of Injury - Enter and exit slowly.
- Risk of Injury - Keep all breakable objects out of the spa area.
- Risk of Shock - Never place electrical appliances (telephone, radio, TV, etc.) within 5 feet of the spa.
- Risk of Shock - Spa must not be operated during severe weather conditions, i.e. electrical storms, tornadoes, etc.
- Risk of Drowning - Do not allow the use of, or operate spa, if the suction fitting is missing, broken or loose.

D. Maintenance and Operation

Public spas must be maintained and operated in compliance with the *American National Standard for Public Spas (ANSI/NSPI-2 1999)*, as amended. Specific parameters for this standard may be found in Appendix A of these Rules.

SECTION 10. INSPECTION AND CLOSURE

A. Inspection

1. All public pools and spas must be open for inspection by any authorized agent of the Department at all reasonable times.
2. Any authorized agent of the Department may cite the owner or operator of a public pool or spa for non compliance with any of the requirements of these Rules. The citation will specify a compliance period, which may not exceed one year.

B. Pool Closure

1. If, in the opinion of the Department, a public pool or spa is maintained or operated in a manner which creates an unhealthful, unsafe, or unsanitary condition in violation of these Rules, the public pool or spa may be closed by the Department.
 - a. Prior to such closure, the Department will issue a notice in writing, enumerating instances of failure to comply with these Rules. The public pool or spa must not be reopened until an appropriate correction is made, and upon specific written approval of the Department.
 - b. The owner must have an opportunity to request a fair hearing before the Department, pursuant to 5 M.R.S. §§ 9052 -9064.
2. Unhealthful, unsafe or unsanitary conditions include, but are not limited to, the failure to meet clarity, sanitization, pH, safety or bacteriological standards.
3. The Department reserves the right to test pool water for bacterial contamination, as necessary.

SECTION 11. VARIANCES AND APPEALS

A. Variances

1. A public pool or spa operator may submit a request for a variance from these Rules. The variance request must be in writing and must state the following:
 - a. The reason(s) for the variance request; and
 - b. The reason(s) why the specific requirement(s) of the rules cannot be met.
2. The Department will review the request for a variance and respond in writing within 30 days.

B. Appeals

Anyone aggrieved by a decision of the Department in regard to these rules may request an administrative hearing in conformance with the Administrative Procedure Act, 5 MRSA Chapter 375. The request must be in writing and must specify the reasons for the appeal. The written request must be submitted to the Department no later than 30 days from receipt of notice of the Department's decision. All hearings must be conducted in accordance with the Department's Office of Administrative Hearings – Administrative Hearing Regulations (10-144 CMR 1).

APPENDIX A

CHEMICAL OPERATIONAL PARAMETERS

These standards set forth the operational parameters required for the proper chemical treatment and maintenance of public pool and spa waters.

Chemical treatment alone will not produce sanitary pool and spa water. A filtration system in proper operational condition is also required to attain clear, and sanitary water.

Public Pools – NSPI-1, NSPI-4, NSPI-9

Public Spas – NSPI-2

1. Sanitizer Levels

a. Free chlorine, ppm

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-4 NSPI-9	1.0	1.0-3.0	4.0	Hot water/heavy use may require operation at or near maximum levels. <ul style="list-style-type: none"> • Test kits are available for a variety of free chlorine ranges. • Free chlorine test color (DPD) may be completely or partially bleached by chlorine levels greater than 5 ppm to give a false low reading. For appropriate test kit, consult pool professional or test kit manufacturer. Regular oxidation is recommended and remedial practices may be necessary.
NSPI-2	3.0	4.0-5.0	8.0	Public Spas: <ul style="list-style-type: none"> • During hours of operation, test the water hourly, record results, maintain the ideal range continually and shock treat at the end of the daily use period.

b. Combined Chlorine, ppm

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-4 NSPI-9	0	0	0.2	High combined chlorine results in reduced sanitizer efficacy. Take remedial action to reduce combined chlorine. Other signs of combined chlorine: Sharp chlorine-like chlorinous odor and eye irritation (e.g., mucous membrane).
NSPI-2	0	0	0.5	

c. Total Bromine, ppm

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-4 NSPI-9	3.0	3.0-5.0	7.0	Hot water/heavy use may require operation at or near maximum levels. Regular oxidation is recommended. During hours of operation, test the water regularly, record results, and maintain the ideal range continually. NSPI-2: Test water before use. During extended use test water hourly. Shock treat after use.
NSPI-2	6.0	6.0-8.0	10.0	

2. Chemical Values

a. pH

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9	7.2	7.4-7.6	7.8	<p>Operating pH at the minimum level requires alkalinity and hardness to be operated at a higher level. At maximum pH, calcium hardness and total alkalinity may have to be adjusted downward to maintain proper water balance. (See “saturation index” in NSPI Glossary.)</p> <p>If pH is too high:</p> <ul style="list-style-type: none"> • Low chlorine efficacy • Scale formation • Cloudy water • Eye discomfort <p>If pH is too low:</p> <ul style="list-style-type: none"> • Rapid dissipation of sanitizer • Plaster and concrete etching • Eye discomfort • Corrosion of metals • Vinyl liner wrinkling

b. Total Alkalinity (Buffering) ppm as CaCO₃

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9	60	<p>80-100 For calcium hypochlorite, lithium hypochlorite and sodium hypochlorite</p> <p>100-120 For sodium dichlor, trichlor, chlorine gas and bromine compounds</p>	180	<p>If total alkalinity is too low:</p> <ul style="list-style-type: none"> • pH bounce • Corrosive tendency <p>If total alkalinity is too high:</p> <ul style="list-style-type: none"> • Cloudy water • Increased scaling potential • pH tends to be too high <p>These values are based on carbonate alkalinity.</p>

c. Total Dissolved Solids (TDS)

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9	NA	NA	<p>1500 ppm greater than TDS at pool start-up*</p> <p>*Start-up TDS includes source water TDS and any other inorganic salt added at start-up.</p>	<p>An increase in TDS may indicate an accumulation of impurities during the course of operation. Excessively high TDS may lead to hazy water and scale formation, corrosion of fixtures, and may inhibit sanitation.</p> <p>TDS can be reduced by partial draining and addition of fresh water.</p> <p>For spas: TDS should be periodically reduced by draining. (See Section K. Water Replacement Procedure)</p>

d. Calcium hardness, ppm as CaCO₃

NSPI Standard	Minimum	Ideal	Maximum	Comments
---------------	---------	-------	---------	----------

NSPI-1 NSPI-4 NSPI-9	150	200-400	1000	Lower alkalinity and lower pH must be used with hardness over 500 ppm.
NSPI-2	100	150-205	800	
e. Heavy Metals				
NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9	NA	NA		If excessive heavy metals (such as copper, iron, and manganese) are present: <ul style="list-style-type: none"> • Staining may occur • Water may discolor • Filter cycle may decrease and require more frequent backwashing • May indicate pH to low, corrosion, etc.
3. Biological Values (Maintaining adequate sanitizer levels is critical to prevent growth of algae and bacteria)				
a. Visible Algae				
NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9	None Visible	None Visible	None Visible	If algae growth is observed recommendations may include but are not limited to: <ul style="list-style-type: none"> • Superchlorinate the pool or spa. • Use an EPA-registered algicide according to label directions. • Supplement with brushing and vacuuming. Some algaecides may cause foaming.
b. Bacteria				
NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9	None	None	None	If bacteria count exceeds 0 CFU/100 ml, superchlorinate and follow proper maintenance procedures.
4. Stabilizer (when used)				
a. Cyanuric Acid, ppm				
NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9	10	30-50	150	If stabilizer is too low: Chlorine residual is rapidly destroyed by sunlight. If stabilizer is too high: May reduce chlorine efficacy to algae. NOTE: Stabilized chlorine use is prohibited for indoor pools. Cyanuric acid does not stabilize bromine sanitizers.

5. Oxidation**(Regular oxidation is recommended for pools and spas with normal bather load as a preventative treatment)****a. Chlorine Products**

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-4 NSPI-9	As needed	Weekly	Determined by bather load, weather conditions, etc.	Some high use pools may require oxidation several times per week. Regular oxidation is recommended to prevent the build-up of contaminants, maximize sanitizer efficiency, minimize combined chlorine and improve water clarity.
NSPI-2		At the end of each day facility is used.		

b. Potassium Monopersulfate

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-4 NSPI-9	As needed	Weekly	Determined by bather load, weather conditions, etc.	Some high-use pools may require oxidation several times per week. Regular oxidation is recommended to prevent the build-up of contaminants, maximize sanitizer efficiency, minimize combined chlorine and improve water clarity. Potassium monopersulfate will measure as combined available chlorine in DPD test system. Refer to test kit manufacturer's directions.
NSPI-2		At the end of each day facility is used.		

c. Hydrogen Peroxide

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9	Monthly	As needed	Determined by bather load, weather conditions, etc.	Hydrogen peroxide should not be used as an oxidizer for pools and spas sanitized by chlorine dioxide.

d. Chlorine Dioxide

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-4	As needed	3-4 weeks	Determined by occurrence of biofilms in skimmer or plumbing or by abrupt disappearance of hydrogen peroxide.	No comments

6. Remedial Practices

a. Superchlorination

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9				<p>Follow label directions. Use a registered chlorine sanitizer.</p> <p>Do not enter pool or spa until water meets the prescribed values in Section A.</p> <p>Some symptoms that may indicate a need for superchlorination are:</p> <ul style="list-style-type: none"> • Cloudy water • Slime formation • Musty odors • Difficulty in maintaining a sanitizer residual • Algae and/or high bacteria counts

b. Superchlorination to establish breakpoint, dosage in ppm

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9	At least 10 times combined chlorine			High dosage may be required to satisfy chlorine demand. If combined chlorine persists, water replacement should be considered.

c. Shock Treatment

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9				<p>Some conditions that may indicate a need for shock treatment are:</p> <ul style="list-style-type: none"> • Cloudy water • Difficulty in maintaining a sanitizer residual • Periods of heavy bather use • Adverse weather <p>Non-chlorine shocks are not sanitizers. They are effective in oxidizing organic contaminants. If the purpose of shock treatment is to treat bacteria or visible algae, an EPA registered product for that use should be used; follow label directions.</p> <p>Spas should be shock treated on a daily basis when used.</p>

d. Chlorine Dioxide

NSPI Standard	Minimum	Ideal	Maximum	Comments
		As needed	Determined by occurrence of biofilms in skimmer or plumbing or by abrupt disappearance of hydrogen peroxide.	Follow label directions.

e. Clarification/Flocculation				
NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9		As needed		Follow manufacturer's directions.
f. Algidicides				
NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9		As needed		Use U.S. EPA-registered products. Follow manufacturer's directions. Use of some algicides may cause foaming.
g. Foam Control				
NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9		As needed		Foam may harbor persistent microorganisms. If foaming is not adequately controlled, consider daily shock treatment, water replacement, or an appropriate anti-foam agent. Follow manufacturer's directions.
7. Temperature				
NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4	Personal preference	For pools: 78°F-82°F	Personal preference	If temperature is too low: <ul style="list-style-type: none"> • Bather discomfort
NSPI-9	Personal preference	For spas: Personal preference	104°F	If temperature is too high: <ul style="list-style-type: none"> • Excessive fuel requirement • Increased evaporation • Bather discomfort • Increased scaling potential • Increased use of sanitizers <p>Overexposure to hot water may cause nausea, dizziness and fainting.</p>
8. Water Clarity				
NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9	The deepest part of the pool or spa and/or main drain must be visible and sharply defined.			If water is turbid: <ul style="list-style-type: none"> • Sanitizer level may be low • Filtration/circulation system may require maintenance • Improper chemical balance (Appendix A(2)) • Consult remedial practices (Appendix A(6))

9. Ozone

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-4 NSPI-9 Concentration in air above pool or spa water, ppm			0.1 over 8-hour time weighted average.	<ul style="list-style-type: none"> Serves as oxidizer of water contaminants. Must be used with EPA-registered sanitizer. Indoor installations should have adequate ventilation.

10. Oxidation Reduction Potential (ORP)

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-1 NSPI-2 NSPI-9	650 MV			<p>When chlorine or bromine is used as the primary sanitizer, ORP is commonly used to control sanitizer feed. The use of ORP controllers does not eliminate or supercede the need for testing the sanitizer level with standard test kits.</p> <p>ORP reading may be affected by a number of factors including, but not limited to pH, probe condition, cyanuric acid, sanitizer type, and supplemental oxidizers.</p> <p>Follow manufacturer's recommendations.</p>

11. Water Replacement

NSPI Standard	Minimum	Ideal	Maximum	Comments
NSPI-2	Water in spas/hot tubs that have high bather use requires partial or complete replacement of water periodically.	Water in spas/hot tubs that have high bather use requires complete replacement of water per the replacement guidelines below.		Water replacement is necessary to dilute dissolved solids, to maintain water clarity, and to do necessary routine maintenance.

APPENDIX B

WATER REPLACEMENT STANDARDS

This procedure provides requirements of how to determine the frequency for which spa and hot tub water should be replaced.

Test the TDS (Total Dissolved Solids) and calculate the WRI (Water Replacement Interval) to determine when your spa needs to be drained. Drain the spa completely, clean it thoroughly, and refill it with source water when either of the following conditions is met:

1. The Total Dissolved Solids (TDS) in the spa water exceeds the source water TDS by 1,500 ppm or more; or
2. The Water Replacement Interval (WRI) is less than or equal to the number of days since the last time the water was drained. WRI is calculated as shown in the formula and examples below.

$$\text{WRI, days} = (1/3)(\text{Spa Volume, U.S. Gallons})/(\text{Number of Bathers/Day})$$

EXAMPLE 1: The TDS of the original source water was measured and recorded to be 800 ppm. The TDS of the spa water is now reading 2,500 ppm. The difference is greater than 1,500 ppm (2,500 ppm – 800 ppm = 1,700 ppm) and therefore the spa should be drained immediately.

EXAMPLE 2: Consider a 600-gallon spa that was last drained and refilled Sunday evening. Each day the operator estimates the number of bathers that used the spa that day and calculates the WRI. This calculated value is then rounded off to yield a whole number. Referring to the table below, the operator would have calculated based on 85 bathers on Monday:

Water Replacement Interval, days = $(1/3) \times 600 / 85 = 200 / 85 = 2.4$ or about 2 days.

The spa water was replaced Tuesday evening because the Monday bather load (85) dictated that a 2- day Water Replacement Interval was required.

	Mon	Tue	Wed	Thur	Fri	Sat	Sun
Bathers/day	85	2	19	20	105	100	<50
Calculated days to replace water	2.4	100	10.5	10	1.9	2	>4
Days to replace water (WRI)	2	100	11	10	2	2	>4
Drain the spa?	No	Yes	No	No	Yes	No	Yes

EXAMPLE 3: Referring to the table above, the WRI values for Wednesday and Thursday did not indicate a need to drain the spa. The water was replaced on Friday evening because the Friday bather load (105) dictated a 2-day Water Replacement Interval (Friday is already 3 days after Tuesday).

EXAMPLE 4: The water was replaced again Sunday evening because of the Saturday bather load (100). The bather load on Sunday was irrelevant because the spa would be drained regardless due to the high bather load on Sunday.

APPENDIX C**RULES POSTED****(SECTION 6 (H))**

The following are suggested signs or rules to post in a conspicuous place at a public pool or spa:

- ❖ **“No Unsupervised Small Children Allowed in the Pool Area or Pool”. (Section 6(D)(6)).**
- ❖ **“All Infants and Small Children not Toilet Trained Must Wear Rubber Swim Pants While in the Pool”. (See Section 7 (C)(4))**
- ❖ **“All Pool Users Shall Shower Prior to Entering the Pool”. (See Section 5 (A)(4)).**
- ❖ **“All Pool Users Shall Avoid Using the Pool if They are Experiencing Symptoms of Vomiting, Diarrhea, Skin Rash, or Open Wounds.” (See Section 7(C))**
- ❖ **“No Diving.” or “ Shallow Water No Diving.” or “Dive Only at Designated Areas.”**
- ❖ **“No Swimming in Diving Area if Diving Board is in Use”.**
- ❖ **“Urinating, discharge of fecal matter, expectorating (spitting), spouting water, and blowing one’s nose in the water are not allowed.” (See Section 7 (B)(1).)**
- ❖ **“No Food, Drink, or Glass Containers Allowed.”(See Section 7 (A)(2).)**
- ❖ **“No animals in pool or on pool deck.” (See Section 7 (C)(3).)**
- ❖ **“Swimmers must wear appropriate swimming attire.”**
- ❖ **“No Running or Horseplay Allowed.”**
- ❖ **“No Floatation Devices, Toys or Masks & Snorkel Equipment Allowed.”**
- ❖ **“Only Guests of This Facility May Use the Pool.”**

APPENDIX D**OPERATING RECORDS**

The following parameters and frequencies are required for proper record-keeping procedures.

Parameter	Sampling or Recording Frequency	Notes
Sanitizer residual & pH	As needed to maintain minimum residual, but not less than 3 times per day	Influenced by bather load
Total alkalinity	Once per week	
Calcium hardness	Once per week	
Cyanuric acid	Once per week	
Water Temperature	Daily	
Filter influent/effluent pressure	Daily	Determines need for filter backwash
Recirculation rate	Daily	
Filter backwash	As necessary	As indicated by pressure drop across filter
Bather load	Daily	
Injury or accident	As necessary (See Section 7 (B)(4))	Fecal, vomiting, and bleeding accidents must be recorded
Chemical addition	As necessary	

APPENDIX E

DHHS PUBLIC POOL OR SPA REGISTRATION FORM

1. Owner/Operator of Pool: _____
2. Establishment: _____
3. Location: Street _____ Town or City: _____
4. Owner Mailing Address: _____
Town _____ State _____ ZIP Code _____
Telephone: _____ E-mail: _____
5. Location of Pool/Spa: Indoor [] Outdoor []
6. Capacity in Gallons : _____
7. Dimensions for In-Ground Pool: Length _____ FT. Width _____ FT. Surface Area : _____ FT²
Greatest Depth : _____ FT. Minimum Depth : _____ FT. Maximum Bottom Slope _____ %
Dimensions for Above Ground Pool: Round : Depth _____ FT Diameter _____ FT
Greatest Depth : _____ FT. Minimum Depth : _____ FT. Maximum Bottom Slope _____ %
Square or Rectangular: Length _____ FT. Width _____ FT. Surface Area : _____ FT²
Greatest Depth : _____ FT. Minimum Depth : _____ FT. Maximum Bottom Slope _____ %
8. Dimensions for Spa: Depth _____ FT Diameter _____ FT
9. Recirculation Pump Capacity: _____ GPM
10. Turnover Rate in Hours: _____ HRS.
11. Type of Filter (Check One)
Sand Filter [] High Rate Sand Filter []
Diatomaceous Earth [] Cartridge Filter []
Other, specify: _____
Loading rate: Recirculation Rate _____ GPM/SQ. FT. Filter Area _____ SQ. Ft.
12. Method of Filter Backwash Disposal: _____
If other than public sewer, provide an HHE-200 Form (Subsurface Wastewater Disposal System Application).
13. Diameter of Recirculation Piping _____ (inches)
14. Number of Skimmers: _____ (1 PER 500 SQUARE FEET required.)

15. Size of Gutter: _____ (REQUIRED IF POOL SURFACE AREA IS GREATER THAN 1,600 SQUARE FEET)

16. Height of Board (if any) : _____ Depth of water 12 feet beyond end of board : _____

**REQUIRED: 8 FEET, 6 INCHES FOR 2-FOOT BOARD HEIGHT OR LESS;
10 FEET FOR 1 METER BOARD HEIGHT OR LESS.**

Purification Equipment: _____

Amount of Chemicals Used per Day, in pounds:

Chlorine: _____ Alum: _____ Soda Ash: _____ Other: _____

17. Fresh Water Supply Source _____

18. Average Bathing Load per day: _____

Number of Showers _____ Location : _____

Number of Toilets: _____ Urinals _____ Location: _____

SIGNATURE: _____

DATE: _____

Public Swimming Pool and Spa Registration Instructions

When submitting an application for review of a public swimming pool to the Department, the applicant and/or designer must include the following for a complete application:

- (1) A completed Department Swimming Pool Registration Form.
- (2) Plan(s) of the pool showing depths, area, piping, and safety features, complying with the ANSI/National Spa and Pool Institute's Minimum Standards for Public Swimming Pools. If plans for existing in-ground pools are not available, complete the sample pool diagram page. For above ground pools, omit the plan, but be sure to include the dimensions in the application form.
- (3) Plans and/or manufacturer's specifications for pumps and filtering equipment.
- (4) A complete HHE-200 (Subsurface Wastewater Disposal System Application) if a separate building for showers and/or toilets are associated with the pool or spa **OR** if the pool backwash discharges to a subsurface system. For existing systems installed after 1974, check with your Town Office, or apply for a record search. Systems older than 1974 have no records, and a new design is necessary.
- (5) A review fee of \$15.00 is required. A check or money order must be made payable to the "Treasurer of State" and submitted.
- (6) A pre-operational inspection is required. The Department must be notified at least 15 days in advance of placing the pool or spa in operation to allow for inspection and approval.

Upon receipt of all of the above, we will review your request. Please allow a minimum of 30 working days for the review.

If you have any comments or questions, please feel free to contact us.

Plan Review

Subsurface Wastewater Unit - DWP
 Division of Environmental Health
 Maine Center for Disease Control & Prevention
 Department of Health and Human Services
 286 Water Street, 3rd Floor
 Augusta, ME 04333

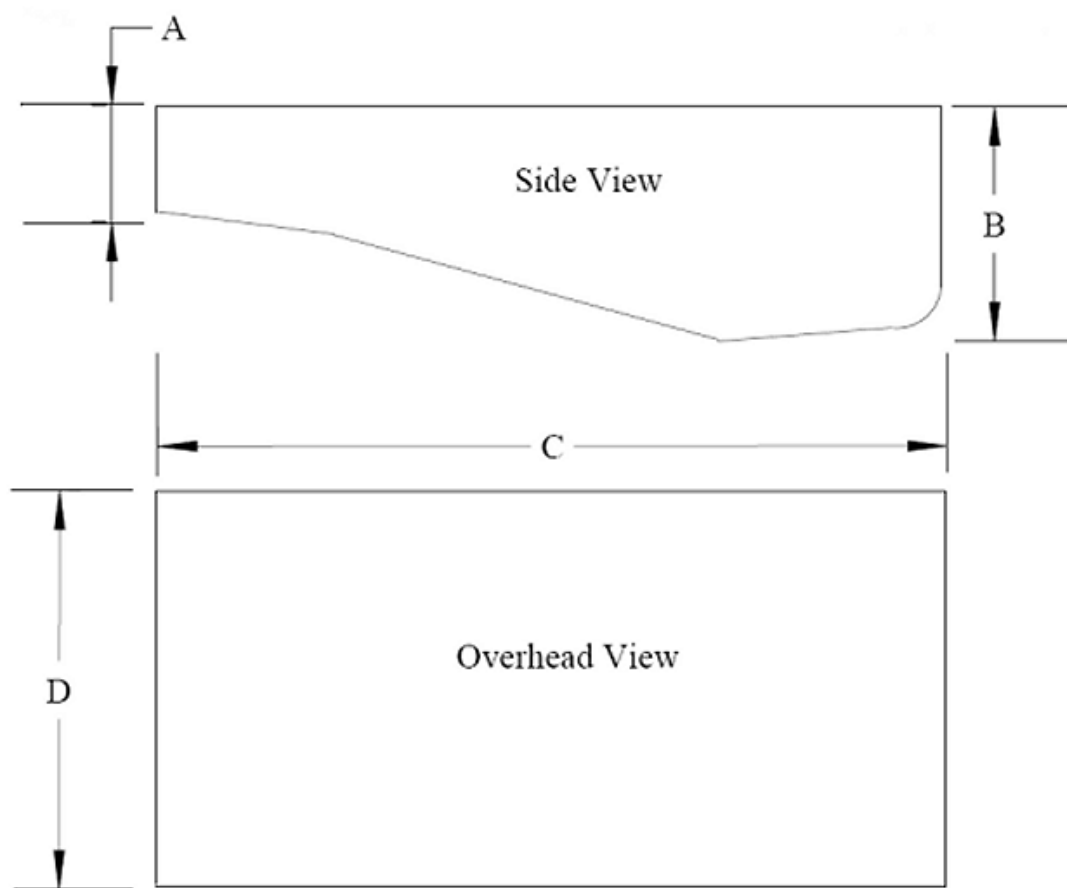
(207) 287-5672

Inspection & Operation

Health Inspection Program
 Division of Environmental Health
 Maine Center for Disease Control & Prevention
 Department of Health and Human Services
 286 Water Street, 3rd Floor
 Augusta, ME 04333

(207) 287-5671

IN-GROUND SWIMMING POOLS



Please indicate the approximate locations of skimmers on the overhead plan with an "X" for each one.

Please complete the following dimensions.

Depth "A" = ____ ft. ____ in.

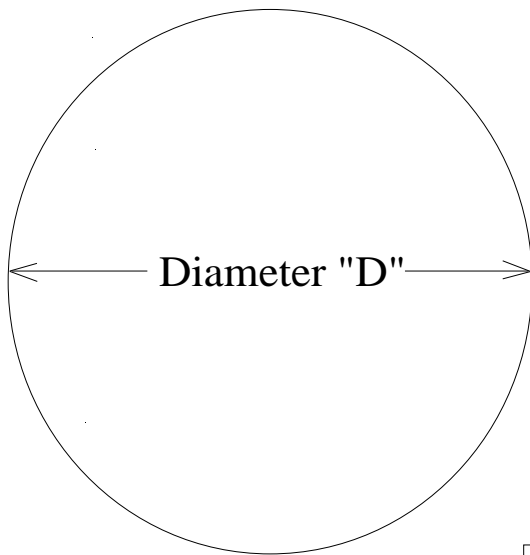
Depth "B" = ____ ft. ____ in.

Length "C" = ____ ft. ____ in.

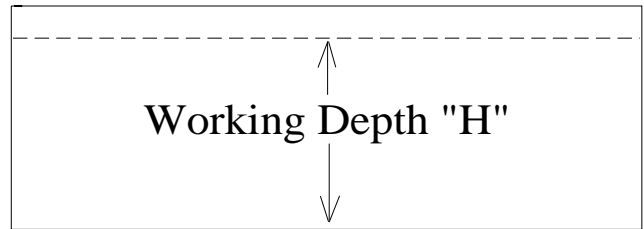
Width "D" = ____ ft. ____ in.

Public Pool Plan	
Owner, Name	_____
Owner, Address:	_____
Owner, Town:	_____ State: _____ ZIP Code _____
Pool/Spa Location, Street	_____
Pool/Spa Location, Town	_____

Above Ground Swimming Pools



Plan View



Side View



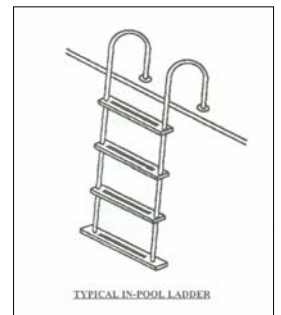
A-FRAME LADDER

A



TYPICAL STAIRCASE LADDER

B



TYPICAL IN-POOL LADDER

C

Typical Above Ground Pool Ladders

Please complete the following dimensions.

Diameter "D" = _____ ft. _____ in.

Depth "H" = _____ ft. _____ in.

Please choose a ladder style:

A B C

Other: _____

Public Pool Plan	
	Owner, Name _____
	Owner, Address: _____
	Owner, Town: _____ State: _____ ZIP Code _____
	Pool/Spa Location, Street _____
	Pool/Spa Location, Town _____

STATUTORY AUTHORITY: 22 MRS §§ 1631 to 1635 and 22 MRS §§ 2661 to 2669

APPROVED:

January 17, 1956

EFFECTIVE DATE (ELECTRONIC CONVERSION):

May 5, 1996

REPEALED AND REPLACED:

May 31, 2000 – filing 2000-231

NON-SUBSTANTIVE CORRECTIONS:

January 2, 2001 - spelling and punctuation

AMENDED:

September 1, 2010 – filing 2010-359