

CHAPTER XIV

SWIMMING POOLS

SECTION 1 DEFINITIONS

- 1.1 **LOCATE:** Locate means to designate the site of the swimming pool
- 1.2 **CONSTRUCT :** Construct means to build or install a new swimming pool or enlarge an existing swimming pool or any of its appurtenant facilities.
- 1.3 **ALTER:** Alter means to replace or modify any portion of an existing swimming pool.
- 1.4 **OPERATE:** Operate means to conduct, maintain or otherwise provide facilities for bathing at swimming pools.
- 1.5 **PERSON:** Person means corporation, company, association, society, firm, partnership and joint stock company as well as an individual.
- 1.6 **SWIMMING POOL:** Swimming pool means any type of outdoor or indoor pool, which is constructed to provide recreational facilities for swimming, bathing or wading; including appurtenant buildings and equipment.

SECTION 2 FAMILY SWIMMING POOL

- 2.1 **DEFINITION** A family swimming pool means a swimming pool or wading pool established or maintained by an individual for his own family's use or use by guests of his household.

- 2.2 **PERMITS** Permits to construct or alter family swimming pools shall be obtained as described in Sections 3.1 through 3.4 of these rules and regulations.
- 2.3 **LOCATION** Swimming pools must be connected to adequate water supply and waste disposal facilities.
- 2.4 **ENCLOSURES** Pools shall be surrounded with a chain link fence or equivalent, at least 4 feet high. Gates shall be provided with locks.
- 2.5 **BATHING WATER QUALITY** Quality of water shall be as required under Section 15 of these rules and regulations.
- 2.6 **PROTECTION OF PUBLIC WATER SUPPLY** Physical connections between potable water systems and swimming pool or swimming pool circulation systems shall not be permitted. An air gap of 6" must be provided.
- 2.7 **MAINTENANCE** Pool and pool surroundings shall be kept clean and orderly at all times.

SECTION 3 PERMITS

- 3.1 **APPROVAL TO CONSTRUCT OR ALTER** Swimming pools shall not be constructed or altered until the Board of Health has given formal approval thereof by issuance of a permit.
- 3.2 **PROCEDURE FOR OBTAINING A PERMIT TO CONSTRUCT** A permit to construct a swimming pool shall not be issued until the Board of Health has received and approved an application thereof, accompanied by such plans specifications and information as may be required by the Board of Health.

3.3 PROCEDURE FOR OBTAINING A PERMIT TO ALTER

A permit to alter a swimming pool shall not be issued until the Board of Health has received an application therefor, accompanied by such plans, specifications and information as may be required by the Board of Health.

3.4 EXISTING SWIMMING POOLS

Construction provisions of these rules and regulations shall not apply to swimming pools in existence at the time of their adoption, except that alterations to any portion of such swimming pools shall be made in accordance with the applicable provision of these rules and regulations.

3.5 PROCEDURE FOR OBTAINING PERMIT TO OPERATE

A permit to operate a swimming pool shall not be issued until the Board of Health has received an application therefor, accompanied by such information as may be required by the Board of Health. Permits shall be issued annually and shall expire on March 31, of each year. Permits will establish the maximum allowable bathing loads for the swimming pool.

3.6 SUSPENSION OF PERMIT TO OPERATE

A permit to operate a swimming pool may be suspended at any time when in the the opinion of the Board of Health such action is necessary to abate a present or threatened nuisance, or if maximum allowable bathing load stated on the permit has been exceeded.

SECTION 4 GENERAL LAYOUT AND DESIGN

4.1 LOCATION Swimming pools must be connected with adequate water supply and waste disposal facilities.

4.2 LAYOUT Pool layout shall be such that bathers leaving the dressing rooms will first have access to toilets and then shower facilities. Exits and entrances shall be located at the shallow end of the pool.

4.3 MATERIALS OF CONSTRUCTION All material used shall be durable waterproof and easily cleaned. The bottom and sides of pools shall be white or light in color, except that aluminum

paint shall not be used as a finish. Pool sides and bottoms shall be smooth and free from cracks or open joints. Walkways around pools shall be of light color, easily cleaned, and slip-proof. Sand or earth bottoms shall not be permitted.

- 4.4 **SIZE** The pool area shall be proportioned as follows:
- (a) 10 square feet shall be provided for each non-swimmer expected to be present at the time of maximum load. Non-swimming areas are those less than 5 feet in depth.
 - (b) 24 square feet shall be provided for each swimmer expected to be present at the time of maximum load. Swimming areas are those greater than 5 feet in depth.
 - (c) 300 square feet shall be reserved around each diving board or platform provided for diving purposes.
- 4.5 **BOTTOM SLOPE** The bottom slope of pools in non-swimming areas shall not be greater than 1 foot vertical to 15 feet horizontal. There shall be no sudden change of slope where the pool depth is less than 5 feet. The bottom slope of pools in swimming areas shall not be greater than 1 foot vertical to 3 feet horizontal. The bottom of the pool shall slope to the main drain or outlets. Flat bottoms shall not be permitted.
- 4.6 **MARKINGS** Critical depths of pools are those at both ends and also change of slope locations of the pool. Such critical depths shall be conspicuously marked in a permanent manner on both the horizontal and vertical surfaces of the pools and shall be visible in and out of the water.
- 4.7 **OVERFLOW GUTTER** Overflow gutter shall extend completely around the pool and shall be constructed with the lip of the gutter level throughout its perimeter. Overflow gutters shall be of sufficient size and grade to receive and carry off all

overflow. Overflows shall be designed to permit cleaning and repair and to serve as a hand hold for bathers.

- 4.8 **WALKWAYS** Walkways for bathers shall not be less than 8 feet wide and shall extend completely around a pool. Walkways adjacent to diving boards shall be at least ten feet wide. All walkways shall slope away from the pool. Where raised edges are provided between a pool and walkway, such edges shall be at least one foot wide and at least 6 inches high.
- 4.9 **LADDERS AND STAIRS** Ladders for entering and leaving a pool shall be constructed of non-slip tread and shall be located at both sides of the deep section, if the wall height at the shallow end of the pool is more than 2 feet, ladders or steps shall be provided. Stairs or ladders shall have a hand rail on either side with the top leading out over the walkway.
- 4.10 **ENCLOSURES** Pools shall be surrounded with a chain link fence, or equivalent, at least 4 feet high. Gates shall be provided with locks.
- 4.11 **LIGHTING** A complete system of artificial lighting shall be provided for swimming pools operated at night.

SECTION 5 DIVING STANDS AND BOARDS

- 5.1 **DIVING STANDS** Diving stands shall be rigidly constructed and properly anchored with sufficient bracing to insure stability under the heaviest possible load. Slides and rope drops shall not be permitted.
- 5.2 **HEADROOM** At least 13 feet free and unobstructed headroom shall be provided above the diving boards and stands.
- 5.3 **WATER DEPTH** The depth of water in diving areas shall be as follows:

**Height of Diving Board or Minimum Water
Platform Above Water Surface
Depth**

Feet	Feet
Up to 5	8
5 to 8	9
8 to 10	10

- 5.4 **COVERING** Spring boards and diving platforms shall be covered with cocoa matting or other non-slip material. The use of canvas for such purposes is prohibited.

SECTION 6 WADING POOLS

- 6.1 **LAYOUT** Wading pools, if constructed adjacent to a swimming pool, shall be separated therefrom by a fence or other partition 3 feet high.
- 6.2 **DEPTH REQUIREMENTS** Wading pools shall not be designed or used for swimming or diving. The maximum water depth allowed shall be 24 inches.
- 6.3 **CIRCULATION AND TREATMENT** Wading pools may be approved only when used either in conjunction with the regular swimming pool circulation and treatment units or continuously wasted. The entire contents of the wading pool shall be re-circulated or wasted within one (1) hour.

SECTION 7 CIRCULATION SYSTEM

- 7.1 **CAPACITY** All circulation units shall have sufficient capacity to re-circulate the entire contents of the pool in 8 hours except that if scum gutter water re-circulations is proposed, the units

shall be capable of re-circulating the entire contents of the pool in 6 hours.

- 7.2 **PUMPS** The combination of pumps provided shall have capacities as required for circulation and shall also be capable of washing filters at a rate of 15 gallons per minute per square foot of filter area for one filter.
- 7.3 **PIPING** The piping system shall be designed so as to fill the pool, circulate the pool water through the treatment equipment, wash each filter individually, filter to waste, operate suction cleaner if re-circulation pumps are used, empty the pool, and drain the entire system.
- 7.4 **PROTECTION OF POTABLE WATER SUPPLY** Physical connection between potable water systems and swimming pool or swimming pool circulation systems shall not be permitted. An air gap of 6" must be provided.
- 7.5 **HAIR CATCHER** The re-circulation system shall include a strainer to prevent hair, lint, or any other foreign material from reaching the filters.
- 7.6 **SUCTION CLEANERS** Suction cleaners may be either the portable type or part of the permanent piping system.
- 7.7 **INLETS** Inlets shall be located to produce uniform flow and circulation of water at any point in the pool. There shall be at least one inlet for every 15 feet of pool perimeter.
- 7.8 **OUTLETS** Outlet openings shall have an area of at least four times the discharge pipe area. The location and size of outlets in relation to the inlets shall be such as to provide uniform flow of pool water.
- 7.9 **DRAINS** Pools shall be equipped with at least one gravity or pumped drain at the deepest point capable of emptying the pool within 8 hours.

SECTION 8 FILTRATION

8.1 **GENERAL** Suspended matter in pool shall be removed by means of adequate filtration equipment designed and operated as provided herein. All filters shall be of corrosion resistant material.

8.2 **PRESSURE SAND FILTERS** At least two filters connected in parallel shall be provided. Filter media shall consist of sand, with filter gravel supporting the filter bed. The effective size of the filter media shall be 0.45 - 0.55 millimeters with a uniformity coefficient not greater than .75. The media must be free of clay, organic and soluble matter. The effective depth of filter media shall be at least 20 inches. The total depth of each filter bed shall be at least 36 inches.

The rate of filtration shall not be greater than 3 gallons per minute per square foot of filter area. The minimum rate of backwash shall be 15 gallons per minute per square foot of filter area.

8.3 **CHEMICAL APPLICATION** Means shall be provided for the application of chemicals for pH control and coagulation. A solution tank with accurate measuring devices shall be provided for coagulation purposes at swimming pools having capacities greater than 50,000 gallons.

8.4 **FILTER APPURTENANCES** All appurtenances necessary for proper operation and control of filters shall be provided. Appurtenances shall include inlet and outlet pressure gauges, recirculation and backwashing flow meters, sight glasses, air relief valves, and other accessories as required by the Board of Health.

8.5 **SUMP** A sump shall be provided to receive filter backwash water. There shall be an air gap of 6 inches or more between the discharge pipe opening and the overflow level of the sump.

SECTION 9 DISINFECTION

- 9.1 **DISINFECTING AGENTS** Mechanical means shall be provided for continuous and effective disinfection of swimming pool waters by means of chlorine compounds. Intermittent dosage by hand distribution of chemicals directly into the pool is not acceptable.
- 9.2 **CHLORINATION** Chlorinating devices shall be of the solution feed type, wherein chlorine gas is dissolved in water prior to introduction into the re-circulating pool water. The capacity of chlorinators shall be at least 1 1/2 pounds of chlorine per day per 10,000 gallons of pool volume. Chlorinating devices shall be placed in a separate room with an outside entrance having a positive ventilation air duct beginning at the bottom of the room and terminating to the outside of the building. Scales shall be provided for determining the loss of weight of chlorine gas cylinders. Gas masks shall be provided. Comparators for measuring residual chlorine and pH shall be provided.
- 9.3 **HYPO-CHLORINATION** Hypo-chlorinating devices shall be the reciprocating pump type, where-in a hypo-chlorite solution is pumped into the re-circulating pool water. Two solution tanks each having 48 hours storage capacity shall be furnished.

SECTION 10 DRESSING ROOMS AND BATHHOUSES

- 10.1 **LAYOUT** Dressing rooms or bathhouses to be used simultaneously by both sexes shall be entirely separated by partitions. Line of sight shall be broken at entrance and exits of dressing rooms.
- 10.2 **FLOORS** Floors of all dressing and locker rooms shall be constructed of smooth, finished material impervious to moisture. Wood slats on floors shall not be permitted. Floors shall have sufficient pitch and otherwise be constructed so as to permit proper drainage after washing down. Walk areas used by patrons shall be of nonslip construction.
- 10.3 **WALLS AND PARTITIONS** Walls and partitions of all dressing rooms and bathhouses shall be smooth, impervious

material. If walls of wood or other similar material are used, all cracks and points shall be filled and the surface kept finished with paint or other sanitary water-proof coating. Partitions shall terminate a sufficient distance above the floor to permit flushing of the entire floor area.

10.4 **FURNITURE AND LOCKERS** All furniture used in dressing rooms shall be of simple character and easily cleaned. Lockers shall be properly ventilated and be of vermin proof construction with tight joints.

10.5 **VENTILATION** Dressing rooms or bathhouses shall be constructed so as to provide ventilation at floor and ceiling levels.

SECTION 11 SHOWERS

11.1 **NUMBER** Hot and cold water showers shall be provided based upon the maximum allowable bathing load in the proportion of one men's and one women's shower for each 40 bathers or fraction thereof. Each shower shall have a foot tub with 0.3 to 0.6 per cent solution of available chlorine or its equal as a disinfectant.

11.2 **TYPE** Manually operated mixing valves shall be provided to insure a satisfactory mixture of hot and cold water without danger of scalding.

11.3 **SOAP** Liquid or powdered soap in suitable soap dispensers shall be installed adjacent to each shower.

SECTION 12 TOILETS AND LAVATORIES

12.1 Toilet and lavatories shall be provided based upon the maximum allowable bathing load in the proportion of one women's toilet for each 40 bathers or fraction thereof, one men's toilet and one urinal for each 60 bathers or fraction thereof, and one women's and one men's lavatory for each 60 bathers or fraction thereof.

- 12.2 **TYPE** Toilets shall be of the flush type and constructed of vitreous china. Urinals shall be constructed so as to prevent splashing. Lavatories shall be of vitreous china and shall be equipped with tamper proof spring valve controls.
- 12.3 **STALLS** Toilet stalls shall be enclosed with noncorrosive partitions. There shall be sufficient space between the floor and walls to permit washing. Doors shall swing inward.

SECTION 13 EMERGENCY EQUIPMENT

- 13.1 **RESCUE EQUIPMENT** Swimming pools shall be equipped with at least two poles or shepherd's crooks. There shall also be provided at least two life rings at least 14 inches in diameter with a sufficient length of 1/4 inch manila line firmly attached to each ring. Such equipment shall be properly stored and readily accessible.
- 13.2 **FIRST AID** A standard 24-unit First Aid Kit, a stretcher and two woolen blankets, shall be properly stored and readily available at all times when a pool is open for use.

SECTION 14 SUPERVISION AND MAINTENANCE

- 14.1 **GENERAL** Swimming pools, when open for use, shall, at all times be under the supervision of a competent director who shall be responsible for all phases of pool operation.
- 14.2 **LIFEGUARDS** At least one senior lifeguard shall be on duty at all times who holds, as a minimum, a valid Senior Lifeguard Certificate issued by the American Red Cross, Y.M.C.A. or other equivalent rating. There should be at least one lifeguard for every 150 patrons in attendance at a pool.
- 14.3 **PERSONAL REGULATIONS** Personal regulations shall be enforced by the management and shall include the following:
- (a) All persons using a pool shall be directed to take a cleansing shower in the nude, using warm water and soap

and shall thoroughly rinse off all soap suds before entering the pool proper. Bathers leaving the pool area shall be required to take a second cleansing shower before re-entering.

- (b) Any persons showing evidence of skin disease, sore or inflamed eyes, cold, nasal or ear discharges or any communicable disease shall be refused admission.
- (c) Persons with excessive sunburn, open blisters, cuts or bandages shall be refused admission.
- (d) Women and girls shall be required to wear bathing caps.
- (e) No dogs or other animals shall be allowed in the pool area, dressing rooms or other parts of the pool enclosure.
- (f) No food or drink shall be consumed within the pool enclosure.
- (g) Persons in street shoes or other spectators shall not be permitted in the pool area.
- (h) Unnecessary expectoration, spouting of water, roughness, rowdyism or other conduct affecting the safety and comfort of others shall not be permitted.

14.4 **MAINTENANCE** All dressing rooms, toilets, showers, pool proper and surroundings shall be kept clean and orderly at all times. A suitable disinfectant shall be used daily on floors,

walls, mats and other interior portions of dressing rooms. Toilets, lavatories and shower room shall be cleaned with soap and water, disinfected daily and kept in good repair. Toilets shall be kept supplied with soap and suitable receptacles for disposal of paper towels. Common towels shall not be permitted.

SECTION 15 BATHING WATER QUALITY

- 15.1 **ANALYSES** Chemical and bacteriological analyses of swimming pool water shall be made in accordance with the procedures set forth in the current edition of "Standard Methods for the Examination of Water and Sewage," published jointly by the American Public Health Association and the American Water Works Association.
- 15.2 **PROCEDURE** Swimming pool operators shall have pool water samples analyzed by a laboratory approved by the Board of Health. Reports of all analysis shall be forwarded to the Board of Health within 24 hours after completion.
- 15.3 **FREQUENCY** One 50 milliliter sample shall be collected at least once weekly from each end of the pool during periods of heavy bathing load.
- 15.4 **BACTERIAL QUALITY STANDARDS**
- (a) **MAXIMUM COLIFORM DENSITIES** Of all ten standard Milliliter portions obtained from a sampling, not more than one portion shall show the presence of organisms of coliform group at any time.

MAXIMUM PLATE COUNTS The total plate count of a sample taken at either end of the pool shall not, at anytime, exceed 250 bacteria per ml. after incubation at 37°C for 24 hrs.

15.5 **CHEMICAL QUALITY** Free chlorine residuals and pH values shall be determined and recorded by the operator not less than four times during any day the pool is in operation. Free chlorine residuals and pH values shall be maintained within ranges indicated below:

pH	Free Chlorine Residual
7.0--7.6	0.4--0.6 p.p.m.
8.0--8.4	2.0--5.0 p.p.m.

15.6 **PHYSICAL QUALITY** The water of a pool, when in use, shall be sufficiently clear to permit a black disk 6" in diameter superimposed upon a white field placed at the bottom of the deepest end of the pool to be clearly visible from the pool walkway at a distance of 30 feet.

SECTION 16 NUISANCE DEFINED

16.1 **GENERAL** A swimming pool constructed, altered or operated in violation of any of the provisions of these rules and regulations is hereby declared to be a nuisance and detrimental to public health.

SECTION 17 SEPARABILITY

17.1 So far as the Board of Health may provide each section of these Rules and Regulations shall be construed as separate to the end that if any section, sentence, clause or phrase shall be held invalid for any reason, the remainder of the Rules and Regulations shall continue in full force.

Board of Health, Natick

John S. Wheeler, M.D.
Chairman
Stuart C. Peterson, Sec.
Francis M. Doran

Adopted May 23, 1960

Published June 2, 1960

SECTION 18 PENALTY

(a) Criminal Complaint - Whoever violates any provision of these rules and regulations may be penalized by indictment or on complaint brought in the District Court. Except as may otherwise be provided by law, and as the District Court may see fit to impose, the maximum penalty for any violation of these provisions shall be \$300.00 for each offense.

(b) Non-Criminal Disposition - Whoever violates any provision of these rules and regulations may, in the discretion of the Health Agent, be penalized by a non-criminal complaint in the District Court pursuant to the provisions of the Massachusetts General Laws, Chapter 40, Section 21D. For the purpose of this provision the penalty to apply in the event of a violation shall be as follows: \$50.00 for the first offense; \$100.00 for the second offense; \$200.00 for the third offense; and \$300.00 for the fourth and each subsequent offense. Each day on which a violation exists shall be deemed to be a separate offense.

Amended February 12, 2002
Summary published March 29, 2002

BOARD OF HEALTH
Natick, Mass.

Chairman

Peter A. Delli Colli, D.M.D.,

Chairman.

Donald J. Breda, P.E., Vice

Michael D. Bliss, J.D., Clerk

