

David Berger, City Solicitor
Room 203 City Hall Annex
Charles A. Baker Commissioner of Records
Room 156 City Hall
Regulations Governing Bacteriological Quality and Disinfection
of Water in Swimming Places

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Subject regulations have been on file in the Department of
Records since May 31, 1956.

These regulations were advertised in the local newspapers
on May 31, 1956.

No inquiries were received as a result of this advertising
and the regulations having been on file for the required thirty day
period are now in force.

cc: Leonard J. Zimet,
Sec'y to the Board of Health

Leonard J. Zimet

DEPARTMENT OF PUBLIC HEALTH
CITY OF PHILADELPHIA

Regulations Governing Bacteriological Quality and Disinfection
of Water in Swimming Places

Code of General Ordinances of the City of Philadelphia
Title 6-Health Code

6-102 Definitions

(50) Swimming Place. Any body of water, natural or artificial, used collectively by numbers of persons for aquatic activities, together with the shores, buildings, equipment, and appurtenances pertaining to such swimming place, whether or not a fee is charged for such use, excluding swimming facilities at private residences which are intended solely for the use of the owner or his family or guests without charge.

6-402 Business, Professional and Community Controls
6-402 (5) Swimming Places

(a) All swimming places shall be constructed, operated and maintained in such a manner as the Board may by regulation prescribe to prevent contamination and the spread of disease and any other actual or potential danger to the public health.

(b) The Department may order the examination or laboratory analysis of such swimming place to determine whether or not such swimming place is contaminated, or constructed, operated or maintained in violation of 6-402 (5) (a).

(c) If such inspection or laboratory analysis established that such swimming place is in fact contaminated, constructed, or operated, or maintained in such manner and such degree that it is hazardous to health if used for any aquatic activity, the Department may order that it be closed to any such aquatic activity until such measures as the Department may prescribe to remove such contamination have been effected.

Pursuant to Section 6-402 (5) of the Code of General Ordinances of the City of Philadelphia, the following regulations are promulgated by the Board of Health.

REGULATION 402 (5) - 1. DEFINITIONS

(A) Approved. Satisfactory compliance in accordance with all applicable laws, ordinances and regulations, as administered and recorded by the Department of Public Health.

(B) Artificial Swimming Place. A swimming place at which a body of water is contained by means of a tank or other structure such that introduction of fresh water supply can be completely controlled.

(C) Natural Swimming Place. A swimming place at a lake, stream, river or other body of water at which the water in the swimming place is subjected to dilution and/or flow by the action of surrounding or upstream water.

(D) Coliform Group. All of the aerobic and facultative anaerobic Gramnegative nonspore-forming bacilli which upon laboratory examination produce a positive presumptive and confirmed test in accordance with the appropriate bacteriological tests performed on samples of water from swimming places.

(E) Most Probable Number. A statistical deduction of the number of organisms of the coliform group present in a sample of water expressed in terms of number of such organisms per one hundred (100) milliliters of water.

(F) Portion. A quantity of water from a sample which is examined for bacteriological characteristics. For example, for samples of water from artificial swimming places, five (5) portions of ten (10) milliliters each are so examined for coliform organisms.

(G) Sample. A specimen of water collected from any location in a swimming place which is examined for quality in accordance with the latest edition of "Standard Methods for the Examination of Water, Sewage, and Industrial Wastes" published by the American Public Health Association, American Water Works Association, and Federation of Sewage and Industrial Wastes Associations.

(H) Standard Plate Count. The number of bacteria colonies recorded as the number of bacteria per milliliter growing in a culture medium in accordance with the appropriate bacteriological tests performed on samples of water from swimming places.

(I) Use. The availability of an artificial swimming place for aquatic activities to persons, other than those persons responsible for the operation of the swimming place.

REGULATION 402 (5) - 2. SANITARY QUALITY

A. Artificial Swimming Places

(.1) Samples of water from artificial swimming places shall be collected when the swimming place is in use.

(.2) Where multiple samples are collected on one occasion from a swimming place during a one-hour period, the sample showing the highest degree of contamination shall be considered as the representative sample.

(.3) An artificial swimming place shall be deemed to be contaminated if:

(a) In a series of samples of water collected by the Department during a period of at least thirty (30) days, more than two (2) of the last ten (10) consecutive samples show the presence of organisms of the coliform group and/or more than two (2) of the last ten (10) consecutive samples show a standard plate count of two hundred (200) or more bacterial colonies per milliliter, or

(b) Consecutive samples collected by the Department show the presence of organisms of the coliform group in three (3) or more of the standard ten (10) milliliter portions tested, or

(c) In a series of at least five (5) samples collected by the Department during a period of less than thirty (30) days, more than twenty (20) percent of the standard ten (10) milliliter portions show the presence of organisms of the coliform group.

B. Natural Swimming Places

(.1) A natural swimming place shall be deemed to be contaminated if:

(a) In a series of at least ten (10) samples collected by the Department over a period of at least thirty (30) days but not more than one year from a natural swimming place, more than fifty (50) percent of the samples show a most probable number of coliform organisms of more than one thousand (1000), or

(b) more than twenty (20) percent of a series of such samples shows a most probable number of coliform organisms of more than twenty four hundred (2400), or

(c) more than five (5) percent of a series of such samples shows a most probable number of coliform organisms of more than four thousand (4000), or

(d) it is found by the Department that any substance hazardous to health of persons is discharged into the watercourse or body of water at or upstream from the swimming place in such a manner and such degree that it is hazardous to health.

C. Responsibility for the Collection and Examination of Samples

The operator of each swimming place shall be responsible for the collection and examination of samples for bacteriological examination at least once each week while the swimming place is in use, or more often as the Department may require. Such samples shall be collected and examined for the coliform group and for the standard plate count by a laboratory approved by the Department.

REGULATION 402 (5) - 3. DISINFECTION

(A) Whenever an artificial swimming place is in use, provision shall be made for effective and continuous disinfection of all water in a manner approved by the Department.

(B) Where such disinfection consists of the application of chlorine or a compound containing chlorine, a free available chlorine residual of at least four-tenths (0.4) parts per million by weight shall be maintained throughout the swimming place:

(.1) whenever it is in use, and

(.2) for a period of at least one (1) hour preceding use, in the case of swimming places newly-filled with fresh water, and

(.3) for a period of at least eight (8) hours preceding use, in the case of swimming places with recirculation facilities.

(C) The Department may permit disinfection by a procedure other than the use of chlorine, if the Department finds that such procedure:

(.1) assures effective disinfection of all water in the swimming place so as to meet the requirements of regulation 402 (5) - 2A for bacteriological quality, and

(.2) such disinfection provides a residual concentration of disinfectant in the swimming place which can be readily measured, and

(.3) such disinfection can be so applied as to be readily controlled and as to maintain such residual concentrations in the swimming place as approved by the Department.

(D) Tests for residuals of disinfectant, as approved by the Department, shall be conducted and recorded by the operator of a swimming place as follows:

(.1) For swimming places without recirculation facilities, in the deep and shallow portions at least once each hour for a period beginning at least one (1) hour preceding use and throughout the period of use.

(.2) For swimming places with recirculation facilities, in the deep and shallow portions at least once every two (2) hours beginning at least one (1) hour preceding use and throughout the period of use.

(.3) The Department may require the performance of additional tests by the operator in order to determine compliance with these regulations.

REGULATIONS 402 (5) - 4. RECORDS

Records of all tests for residuals of disinfectants and results of bacteriological analyses as required in 402 (5) - 2 and 402 (5) - 3 shall be prepared and retained by the operator at the swimming place or at a location readily available to the Department for a period of at least one (1) year. The Department may require the submission of such records to determine compliance with these Regulations.