

105 CMR: DEPARTMENT OF PUBLIC HEALTH

105 CMR 445.000: MINIMUM STANDARDS FOR BATHING BEACHES (STATE SANITARY CODE, CHAPTER VII)

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445.001: Purpose

The purpose of 105 CMR 445.000 is to protect the health, safety and well-being of the users of bathing beaches, to establish acceptable standards for the operation of bathing water and to establish a procedure for informing the public of any bathing water closures.

445.002: Authority

105 CMR 445.000 is adopted under the authority of M.G.L. c. 111, §§ 3, 5S and 127A.

445.003: Citation

105 CMR 445.000 shall be known and may be cited as 105 CMR 445.000: *Minimum Standards for Bathing Beaches* (State Sanitary Code, Chapter VII).

445.004: Scope

105 CMR 445.000 shall apply to all public and semi-public bathing beaches.

445.010: Definitions

The words, terms or phrases listed in 105 CMR 445.010, for the purpose of 105 CMR 445.000, shall be defined and interpreted as follows:

Bathing Beach means the land where access to the bathing water is provided. It shall not mean a swimming pool as defined in 105 CMR 435.000: *Minimum Standards for Swimming Pools*

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(State Sanitary Code, Chapter V).

Bathing Water means fresh or salt water adjacent to any public bathing beach or semi-public bathing beach at the location where it is used for bathing and swimming purposes.

Board of Health means the appropriate and legally designated health authority of the city, town, or other legally constituted governmental unit within the Commonwealth having the usual powers and duties of the board of health of a city or town, or its authorized agent or representative.

Department means the Department of Public Health.

445.010: continued

Operator means any person who

- (1) alone or jointly or severally with others has legal title to a bathing beach, whether or not that person has legal title or control of the bathing water; or
- (2) has care, charge or control of such bathing beach as agent or lessee of the owner or an independent contractor.

Person means any individual or any partnership, corporation, firm, association or group, or the Commonwealth, or any of its agencies, authorities or departments or any political subdivisions of the Commonwealth, including municipalities or other legal entity.

Public Bathing Beach means any bathing beach open to the general public, whether or not any entry fee is charged, that permits access to bathing waters.

Semi-public Bathing Beach means any bathing beach that has common access and/or common use by a group or organization, which includes:

- (1) any bathing beach used in connection with a hotel, motel, a manufactured home park, campground, apartment house, condominium, country club, youth club, school, camp or other similar establishment where the primary purpose of the establishment is not the operation of the bathing beach, and where admission to the use of the bathing beach is included in the fee or consideration paid or given for the primary use of the premises; or
- (2) any bathing beach used in connection with a neighborhood or residential association; or
- (3) any bathing beach operated solely for the use of members and guests of an organization that maintains such a bathing beach.

Private Bathing Beach means any bathing beach not considered to be a public or semi-public bathing beach.

Sanitary Survey means a written report, conducted by a Massachusetts Registered Sanitary Engineer, Certified Health Officer or Registered Sanitarian, documenting an examination of the bathing water and contiguous land masses for the purpose of identifying actual or potential sources of microbiological or chemical contamination. The sanitary survey shall also include a description of the water circulation associated with the bathing area, the impact of bather load on the bathing beach area and any natural or artificial physical hazards.

445.020: Operation

No operator shall allow bathing or swimming in bathing water whenever in the opinion of the Board of Health or the Department the bathing water is or may be hazardous or unsafe for bathing or swimming. Bathing and swimming at public and semi-public beaches shall be limited to water areas that meet the requirements of 105 CMR 445.030. Any operator of a public or semi-public bathing beach shall comply with the requirements of 105 CMR 445.000.

(A) No bathing beach shall be operated without a permanent sign posted at the entrance to each parking lot and/or each entrance to the beach. At minimum, the sign must state the dates of operation, the name and telephone number for the beach operator, permit number, and note that the beach is not monitored for bacteria outside of the specified date range.

(B) The bathing beach operator is responsible for providing and maintaining the sign required

in 105 CMR 445.020(A).

445.030: Bathing Water Quality

Bathing or swimming shall not be permitted in any bathing water where the quality of the water does not meet the standards established in 105 CMR 445.030(A), 445.030(B), or 445.030(C), and no bathing or swimming shall be allowed when the bathing water is determined by the Board of Health or the Department to be unfit or so subject to contamination as to constitute a menace to health. Bathing or swimming shall not be permitted in bathing waters when:

445.030: continued

(A) Physical Quality.

- (1) Sludge deposits, solid refuse, floating waste solids, oils, grease or scum are present; or
- (2) There are safety hazards including, but not limited to, fast currents, sharp drop-offs or an unstable bottom in the wading area(s), or lack of water clarity.

(B) Bacteriological Quality.

- (1) The results of a sanitary survey or other information indicates that sewage or other hazardous substances may be discharged into the bathing water to a degree considered by the Board of Health or the Department to be of public health significance; or
- (2) Epidemiological evidence discloses the prevalence of an infectious disease or other health condition which is considered to be related to the use of the bathing water and is considered by the Board of Health or the Department to be of public health significance; or
- (3) The bacteriological quality of the bathing water is unacceptable based on the standards specified in 105 CMR 445.031 and the following criteria:
  - (a) two samples of bathing water, collected on two consecutive days, that both exceed the single sample water quality standard, or one sample of bathing water that exceeds the single sample water quality standard when an additional sample is not collected on the following day; or
  - (b) one sample of bathing water that exceeds the single sample standard at beaches where, in two or more of the last four full beach seasons, samples collected on two consecutive days both exceeded the single sample water quality standard; or
  - (c) any bathing water sample that exceeds the geometric water quality standard.

(C) Oil, Hazardous Materials, or Heavy Metals. Oil, hazardous materials, or heavy metals are present in excess of surface water quality standards or guidelines established by the United States Environmental Protection Agency or the Massachusetts Department of Environmental Protection.

445.031: Indicator Organisms

(A) For marine water, the indicator organism shall be *Enterococci*. No single *Enterococci* sample shall exceed 104 colonies per 100 ml. and the geometric mean of the most recent five *Enterococci* levels within the same bathing season shall not exceed 35 colonies per 100 ml.

(B) For fresh water, the indicator organisms shall be *E. Coli* or *Enterococci*.

- (1) No single *E. Coli* sample shall exceed 235 colonies per 100 ml. and the geometric mean of the most recent five *E. Coli* samples within the same bathing season shall not exceed 126 colonies per 100 ml; or
- (2) No single *Enterococci* sample shall exceed 61 colonies per 100 ml. and the geometric mean of the most recent five *Enterococci* samples within the same bathing season shall not exceed 33 colonies per 100 ml.

445.032: Collection of Bathing Water Samples

(A) Location.

- (1) The Board of Health, for public and semi-public bathing beaches that are not operated by the Commonwealth, shall approve sampling locations at each bathing beach in its jurisdiction.
- (2) The Department, for bathing beaches that are operated by the Commonwealth, shall approve sampling locations at each bathing beach in its jurisdiction.

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- (3) Samples of bathing water shall be taken at locations within areas of greatest bather load.
- (4) Additional samples shall also be obtained at any critical location subject to contamination from business developments, dwellings, streams, sewer outfall pipes or other sources.
- (5) At locations where there are multiple beach operators within 500 meters of shoreline, the beach operators may designate a single sampling location, known as a surrogate sampling point, which will provide sufficient protection to public health as approved by the local Board of Health. These locations must meet the following criteria:
  - (a) Bathing beaches must not be physically separated from the surrogate sampling point by natural or man-made formations. These may include:
    - 1. embayments or peninsulas;

445.032: continued

2. streams, rivers, or creeks;
3. jetties or other bounding structures;
4. stormwater or combined-sewer overflow outfalls.

(b) At any time the results of a bacterial test exceed the levels in 105 CMR 445.030, all beach operators using a surrogate sampling point must comply with 445.040.

(c) Each beach operator utilizing a surrogate sampling point will be equally responsible for the costs of testing, monitoring and analysis.

(d) 30 days prior to the beginning of the beach season, the local Board of Health must notify the Department of the beach operators utilizing a surrogate sampling point, their location, and the location of the surrogate sampling point.

(e) The local Board of Health or the Department may require any or all of the beach operators to discontinue the use of surrogate sampling points at any time the bathing waters are found to be unfit, subject to contamination as to constitute a menace to public health, or do not provide sufficient protection to protect public health.

(B) Sample Collection. Samples shall be obtained in accordance with the procedures recommended by the most recent edition of the *Standard Methods for the Examination of Water and Waste Water of the American Public Health Association* or as approved by the United States Environmental Protection Agency.

(C) Frequency.

(1) The Board of Health, its agent, or any other authorized person shall collect the bacteriologic samples:

- (a) Within the five days immediately preceding the opening of the bathing season; and
- (b) At least weekly during the bathing season at a time and day approved by the Board of Health or the Department; and
- (c) Prior to reopening a beach after closure due to the presence or suspected presence of any of the conditions specified in 105 CMR 445.030(B)

(2) Testing for oil, hazardous materials, or heavy metals shall only be required if the operator, the Board of Health, or the Department has information indicating possible contamination of the bathing beach or bathing waters from oil, hazardous materials or heavy metals.

(D) Field Data. Physical conditions noted at the time of sampling shall be recorded on a form provided by the Department.

(E) Personnel. Samples shall be taken by the Board of Health, the Department, their duly authorized representatives or other qualified persons as determined by the Board of Health or the Department.

445.033: Laboratory Analysis and Reporting

(A) Laboratory Analysis. Laboratory analysis of bathing water as required by 105 CMR 445.000 shall be conducted in accordance with the most recent edition of the *Standard Methods for Examination of Water and Waste Water of the American Public Health Association* or as approved by the United States Environmental Protection Agency.

(B) Reporting.

(1) Routine Reporting by Operators. Any operator or authorized agent of a public bathing beach, except public bathing beaches operated by the Commonwealth, and any operator or

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authorized agent of a semi-public bathing beach shall report the certified results of all testing, monitoring and analysis of bathing water to the Board of Health within five days of receipt of the results from the laboratory.

(2) Reporting by Operators of Levels Exceeding the Established Standards. Any operator or authorized agent of a public or semi-public bathing beach shall immediately, and in no event later than 12 hours of the results being validated, report to the Board of Health the results of all testing, monitoring and analysis of bathing water found to exceed the standards established in 105 CMR 445.030.

(3) Reporting by the Board of Health. The Board of Health or its authorized agent shall report the results of all testing, monitoring and analysis of bathing water to the Department no later than October 31<sup>st</sup> of each year.



445.034: Bathing Beaches Operated by the Commonwealth

State agencies that own or operate a bathing beach shall conduct or cause to be conducted all testing, monitoring, and analysis of bathing water at such bathing beach in accordance with 105 CMR 445.000. If the results of such testing, monitoring and analysis are found to exceed the standards established in 105 CMR 445.030, state agencies shall immediately, and in no event later than 24 hours, report the results of such testing, monitoring and analysis to the Department and the Board of Health in the city or town where the bathing beach is located. All other results shall be reported to the Department no later than October 31<sup>st</sup> of each year.

445.035: Sampling and Analysis at Semi-public Beaches

(A) The operators of semi-public bathing beaches shall pay for the costs of testing, monitoring and analysis of bathing waters adjacent to such semi-public bathing beaches.

(B) Operators of semi-public bathing beaches may enter into contractual agreements with the Board of Health to have the testing, monitoring and analysis of bathing water conducted by the Board of Health, the Department or other qualified persons as determined by the Board of Health or the Department.

445.036: Public Request for Testing

Any person may request that the Board of Health, or in the case of a bathing beach operated by the Commonwealth, the state agency or the Department, conduct testing, monitoring, and analysis of public and semi-public bathing waters when there is reasonable basis to believe that an alleged violation of 105 CMR 445.000 has occurred. The Board of Health or the Department, as appropriate, shall promptly review such requests and determine whether any such testing, monitoring, and analysis is necessary to ensure the public health and safety of bathing waters.

445.040: Posting and Reopening Notifications

(A) Posting. Whenever the bathing water quality does not meet the requirements of 105 CMR 445.030, 105 CMR 445.032, or after any significant rainstorm at a bathing beach where there has been a history of violations of the water quality requirements contained in 105 CMR 445.030, the Board of Health, its agent, or any other authorized person shall immediately, and in no event later than 24 hours, notify the Department, and post or cause to be posted, a sign, or signs, at the entrance to each parking lot and each entrance to the beach stating:

WARNING! NO SWIMMING  
SWIMMING MAY CAUSE ILLNESS

and a graphic depiction of a swimmer in a red circle with a diagonal hatch mark. The sign shall also contain the reason for the warning, the date of the posting and the name and telephone number of the Board of Health. For conditions solely related to physical hazards, the word “injury” may be substituted for “illness” in the required notification.

(B) Reopening. Prior to reopening bathing water posted due to a violation or an assumption of a violation of the standards established in 105 CMR 445.030(B), the Board of Health, its agent, or any other authorized person shall verify that the certified results of the laboratory analysis are less than the standard specified in 105 CMR 445.031. Prior to reopening bathing water posted due to a violation or an assumption of a violation of the standards established in 105 CMR 445.030(A) or 105 CMR 445.030(C), the Board of Health, its agent, or any other

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authorized person shall confirm by analytic testing or other verifiable means that conditions no longer constitute a threat to human health or safety. The operator of any state operated bathing beach shall notify the Department and the Board of Health within 24 hours, or the next business day, of the reopening of the bathing water.

445.100: Variance

(A) The Board of Health may grant a variance from the provisions of 105 CMR 445.000 for any public or semi-public bathing beach not operated by the Commonwealth. The Department may grant a variance for any bathing beach operated by the Commonwealth. In granting a variance, the Board of Health and the Department shall review available epidemiological data and a written sanitary survey of the bathing beach, as provided by the operator. The survey shall include:

- (1) All possible sources of contamination, both bacterial and chemical on the watershed tributary to the bathing beach including the location and volume of:
  - (a) sewage and industrial waste water discharges;
  - (b) storm water overflows;
  - (c) bird and animal populations; and
  - (d) commercial and agricultural drainage.
- (2) The volume and quality of the diluting water, water depth, water surface area, tides and confluence of tributaries, water currents and prevailing winds.

(B) Any variance granted by the Board of Health shall specify the required bacteriological testing schedule, provided that the frequency of bacteriological testing shall not be less than once prior to the bathing season and at least every 30 days thereafter throughout the duration of the bathing season.

(C) Any variance granted by a Board of Health or the Department shall expire:

- (1) at any time as determined by the Board of Health or the Department, but in no instance greater than four years, at which time the operator may apply for an extension; or
- (2) at any time the results of bacterial test exceed the levels at 105 CMR 445.031.

(D) No variance from the requirement of weekly testing shall be granted until the applicant provides the Board of Health or the Department with water quality data collected for at least two complete and consecutive bathing seasons.

(E) In granting a variance, the Board of Health or the Department must determine that the enforcement of 105 CMR 445.000 would not serve a significant public health purpose and that the granting of the variance will not conflict with the intent and spirit of these minimum standards. Any variance or other modification authorized to be made by 105 CMR 445.000 may be subject to such qualification, revocation, suspension, or other expiration as the Board of Health or the Department expresses in its grant. A variance or other modification authorized to be made by 105 CMR 445.000 may otherwise be revoked, modified, or suspended in whole or in part, only after the holder thereof has been notified in writing and has been given the opportunity to be heard.

445.101: Variance to be in Writing

(A) Any variance granted by the Board of Health or the Department shall be in writing. Any denial for a variance shall also be in writing and shall contain a brief statement of the reasons for denial. A copy of each variance shall be conspicuously posted for 30 days following its issuance and shall, while it is in effect, be available to the public at all reasonable hours in the office of the clerk of the city or town, or in the office of the Board of Health and in the case of a variance by the Department, at the Department.

(B) The Board of Health shall submit to the Department a notice of the intent to grant a variance. The Department shall approve, disapprove, or modify the variance within 45 days from

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receipt thereof. If the Department fails to comment within 45 days, its approval shall be presumed. No alteration of any requirement in 105 CMR 445.000 shall be made under any variance until the Department approves it or 45 days has elapsed without comment, unless the Board of Health certifies in writing to the Department that an emergency exists.

445.300: Permit Required to Operate

(A) Permit Required to Operate. After May 26, 2009 no person shall commence the operation of, or continue to operate, a bathing beach unless the operator is the holder of a valid permit issued by the Board of Health or the Department.

(B) Application. By no later than April 26, 2009, any person operating a bathing beach desiring to continue operating said beach shall file a written application for a permit with the Board of Health, on forms prepared by the Department and obtained from the Board of Health. Any information as required by the Board of Health and payment of any fee required by local bylaw, ordinance or regulation shall accompany the application.

(C) Permit. Upon receipt of a completed application form and any applicable fee, the Board of Health shall review the information to determine if the beach meets the criteria established in 105 CMR 445.000. If so, the Board of Health shall make a determination within 30 days for existing applicants or 60 days for new applicants whether to issue a permit to the operator or the proposed operator to operate a bathing beach, on a form provided by the Department.

(D) Expiration and Renewal of Permit.

(1) A permit shall expire no later than two years from the date issued.

(2) A bathing beach permit may be renewed by applying at least 30 days prior to the expiration of the permit. Renewal application forms prepared by the Department shall be obtained from the Board of Health.

(3) Upon receipt of a completed renewal application form and any applicable fee, the Board of Health shall issue a renewal permit, provided that the conditions for operation set forth in 105 CMR 445.000 are satisfied. The Board of Health may suspend, revoke, or refuse to renew a permit to an operator who is in repeated non-compliance with 105 CMR 445.000.

(4) If a permit expires while a timely filed application for renewal is pending, the bathing beach shall continue to operate under the expired permit until a new permit is issued or the renewal application is denied.

445.400: General Administration

The provisions of 105 CMR 400.000 shall govern the administration and enforcement of 105 CMR 445.000.

445.500: Severability

In the event that any section of 105 CMR 445.000 is found to be invalid or unconstitutional, the remaining sections shall not be affected and shall remain in full force and effect. To this end, the provisions of 105 CMR 445.000 are hereby declared severable.

REGULATORY AUTHORITY

105 CMR 445.000: M.G.L. c. 111, §§ 3, 5S and 127A.



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