



Cohasset Board of Health

Supplemental Rules and Regulations

To

Title V of the State Environmental Code
310 CMR 15.000

Standard Requirements for the Siting, Construction, Inspection, Upgrade and
Expansion of Onsite Sewage Treatment and Disposal Systems and or the
Transport and Disposal of Septage

May 1995
Revised August 1996
Revised July 1998
Revised January 11, 2000

General Provisions

In accordance with the provisions of Title 1 of the State Environmental Code and under the authority of chapter 111, Section 31 of the General Laws and any other powers thereto enabling the Board of Health of Cohasset to adopt regulations relative to disposal of sanitary sewage in unsewered areas, the following regulations are adopted as supplements to:

Title V of the State Environmental Code, 310 CMR 15.000 Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of Onsite Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage.

Effective March 31, 1995 and enforceable by the Board of Health, Cohasset, Massachusetts. These regulations also supersede all previous Board of Health Supplemental Regulations to CMR 310 15.000.

The provisions of Title V of the State Environmental Code and any subsequent revision of same shall apply except when these supplementary regulations are more stringent. The following regulations are adopted to supplement, clarify and augment the provisions of Title V of the State Environmental Code.

Adoption

These rules and regulations were adopted by unanimous vote of the Board of Health on April 25, 1995 and amended by unanimous vote on May 2, 1995, August 1996, July 1998, and January 11, 2000 shall be published in a newspaper and a copy thereof shall be filed in the offices of the Town Clerk, the Board of Health and the Department of Environmental Protection, Division Of Water Pollution Control, Boston and the Department's appropriate Regional Office.

Subpart A General Provisions and Enforcement – 15.003

Coordination with Local Approving Authority

Should any section, paragraph, sentence, clause or phrase of these rules and regulations be declared unconstitutional or invalid for any reason, the remainder of said rules and regulations shall not be affected thereby.

Disposal System Installers Permit

15.019

A disposal system installer's permit will not be granted to any individual who does not receive a score of 80 (eighty) percent or better on the competency test administered by the Board of Health. This applies to individuals who have never had an installer's license in Cohasset, or those who have allowed their license to expire, and whose permit has been revoked. All permits expire December 31, annually and require a renewal fee.

1. The Board of Health shall issue the Disposal System Construction Permit in the name of the recorded owner of the land, after application by said owner or persons authorized by the owner. Such permit is effective only as long as the land remains in the name of the owner to whom the permit is issued and if the land shown on the approved plan and referred to in said permit is sold or transferred before work under the permit is completed, then the permit is void unless a "Transfer of Responsibility" form shall be filed by both transferor and the transferee at the office of the Board of Health and such transfer is approved by the Health Agent. For systems in need of upgrade, installers must obtain a Disposal System Construction Permit from the Board of Health prior to commencement of work. Actual construction may not commence until the installer has an approved Disposal System Construction Permit and paid the permit fee.
2. An application for a Disposal System Construction Permit may be obtained at the office of the Board of Health.
3. In order for the Board to accept a proposal for consideration, an application must be filed with the Board of Health. The application must include plans in conformance with Title V and Cohasset Supplementary Rules and Regulations. The Disposal System Construction Permit application must be paid for and filled out in its entirety. For new construction a non-refundable application fee and a permit extension fee will be charged.
4. All immediate touching abutters and abutters across the street must be notified by certified mail with Board of Health assigned form of Intent to Construct/Upgrade a Septic System, or similar approved notification. (See form in Attachment A). The application will not be considered complete until a certified list of abutters and certified mail receipts are received by the Board of Health.
5. The Town by reason of approval incurs no liability for construction of individual sewage disposal systems as based on plans and specifications supplied by the applicant. No guarantee is intended or implied by reason of any advice given by the Board of Health or a representative thereof.
6. Disposal System Construction Permits are to be issued and dated after the meeting at which the Board approves and stamps the plans.
7. In order to have a Disposal System Construction Permit application reviewed at one of the regularly scheduled meetings, plans must be received in the Board of Health office no later than 4:30 P.M. ten days prior to the meeting for which a requested agenda appointment is desired. In order to be placed on the agenda for matters other than formal plan review, a person must speak with the Health Agent or the Administrative Secretary no later than 9:30 A.M. on the Friday prior to the next meeting.
8. At the discretion of the Board, the applicant for a subdivision plan, condominium or shared system proposing on site disposal will have the plans reviewed by a consultant agreeable to the Board of Health and the applicant at the expense of the applicant.

Certificates of Compliance

15.021

1. The design engineer or the engineer who has supervised the installation must verify that the system has been installed in accordance with the plan approved by the Board of Health, Title V and the Cohasset Board of Health Supplemental Regulations to 310 CMR 15.000. Two copies of an as built plan must be submitted to the Board of Health within two weeks of performance of the final inspection. A Certificate of Compliance will not be issued nor will an occupancy permit be issued until all conditions set forth above have been fulfilled. The as-built plan shall show or contain all the requirements of Section 15.220 and the following;
 - a) The lot being built on.
 - b) The building as it was placed on the lot with shortest distances from the building to the sideline of the road and the building to the lot line.
 - c) The exact location of the septic tank, pump chamber, alternative/innovative treatment system; distances to covers on the septic tank, pump chamber, alternative/innovative treatment system, and the distribution box from the building foundation corners and to the four corners of the soil absorption system.
 - d) Elevations of the top of the concrete foundation, garage floor, if any, inverts of septic tank and distribution box, inlets and outlets, and inverts of the ends of the pipes in the soil absorption system area.
 - e) Final grade elevations over the Soil Absorption System, top of barrier elevations (if applicable) and slope for all systems elevations where the final grade is higher than the existing grade (mound systems).
2. By issuance of a Certificate of Compliance under these regulations or approvals pursuant to these regulations, the Board of Health of the Town of Cohasset or any agent, servant or employee of it or any other person acting for it, does not assume any responsibility for the successful operation of any sewage or waste disposal system thereof.

Records

15.030(4)

When an increase in square footage is proposed for any dwelling, a deed restriction must be recorded at the Registry of Deeds limiting the dwelling to the existing number of bedrooms and an As-Built plan is required showing the interior floor plan prior to and after the addition has been completed.

Subpart B Siting of Systems

General Provisions

15.100

Percolation tests and deep observation holes shall be scheduled for one half or full day periods for new construction. The Health Agent or another approved Board of Health representative shall witness all tests. Payment, as set by the current fee schedule must be made at the Board of Health office at least twenty-four hours in advance. Testing must be scheduled at least one week in advance. Exceptions will be granted upon availability of Health Agent.

Deep Observation Hole Test

15.102

There shall be two observation holes each in both the primary and the reserve areas and shall be so located as to present a reasonable representation of the soils in the entire soil absorption system. For new construction in areas where ledge is prevalent, an attempt will be made to place observation holes at the four corners of the proposed Soil Absorption System. The holes should be no closer than twenty-five feet from each other. Groundwater elevation by deep observation holes shall be determined noting the actual elevation of water entering the hole. Perched water tables shall be used for design purposes. Adjustments to the observed water table will be made as required by the health agent using such methods as soil mottling and the Frimpter method.

Percolation Testing

15.104

1. Two percolation tests in the primary area and one in the reserve area shall be conducted for all new construction. For upgrades, a single percolation test in the primary area is required unless determined otherwise by the Health Agent.
2. Percolation test holes which must be pre-soaked overnight must be safely covered.
3. Substitution of falling head permeability tests for percolation tests shall not be permitted.

Subpart C Design, Construction, Repair and Replacement on Onsite Sewage Disposal Systems

Nitrogen Loading Limitations

15.214(4)

When the Soil Absorption System of a proposed septic system is within 400 feet of the Aaron River Reservoir, The Aaron River, Bound Brook, Peppermint Brook the Gulf River, Little Harbor, Lily Pond, Brass Kettle Brook, Herring Brook, Sanctuary Pond, Mass Bay or any active public water supply well head, the system shall be designed to provide nitrogen removal to a level of 20 mg/l total nitrogen, in the effluent.

Preparation of Plans and Specifications

15.220

1. Applications for all onsite systems shall be accompanied with four sets of plans submitted by a registered professional engineer whose registration is in the area of civil, environmental or sanitary engineering, signed, dated and certified with the stamp of the person responsible for the design. The plans must be drawn to scale not less than one-inch equals twenty feet. In addition to the requirements of 310 CMR 15.220, the drawings shall contain the following information:
 - a) Name and address of owner, lot number, assessors lot number;
 - b) Lot size, lot lines, floor plan of dwelling;
 - c) Location of street, structure, garage, outbuildings, driveways;

- d) Accurate perpendicular distance from street and both sidelines to building;
- e) Proposed elevation of top of foundation, cellar floor, garage floor;
- f) Existing or proposed street centerline grade;
- g) Location and logs of all soil observation holes and percolation tests ever performed on the lot, even if not used for septic system purposes;
- h) Elevations of ground surface at test pit, bottom of test pit and any rock formations or other impervious strata, and observed groundwater encountered. Ledge outcrop location, elevations and bounds must be shown;
- i) Profile of the sewage disposal system showing invert elevations at building drain inlet and outlet from the septic tank; inlet and outlet from distribution box; invert of leach line; and bottom of soil absorption system;
- j) Cross section of sewage disposal system showing all construction details;
- k) Existing and proposed grading at building corners, front lot corners, soil absorption system, and at such other areas where the existing ground contours are being changed;
- l) Location of all existing and proposed water courses, streams, brooks, ponds, lakes, swamps, marshes, vernal pools, culverts, pipes, swales, etc. Flood plain and any mean high tidal water within one hundred feet of the lot line as shown on an accepted Town of Cohasset map. Any seasonally wet area, swamp, marsh area or area of temporary or permanent ponded water within one hundred feet of any lot line of the proposed development must be shown on the plan;
- m) Location of existing Water Resource Districts within one hundred and fifty feet of the sewage disposal system;
- n) Septic facilities and wells on immediately adjacent lots must be indicated on the plan;
- o) The plan shall by contours in two-foot gradients and narrative explanation demonstrate that drainage patterns will not be detrimental to the proposed lot/dwelling. Conditions, which will result in prolonged standing water, are unacceptable. Conditions which may significantly increase drainage onto adjacent properties or a street/roadway are unacceptable;
- p) If a plan has been considered by the Board of Health at a meeting in regular session and a change to the plan is required, such change or modification shall be made in such a way as to be easily distinguishable from the original proposal;
- q) The plan must include a statement, which clearly reads, "No changes are to be made in the filed plan without approval of the Cohasset Board of Health and the design engineer."
- r) The plan must include a statement which reads, "This plan is designed in strict conformance with 310 CMR 15.00 and the Cohasset Board of Health Supplemental Regulation to 310 CMR 15.00." The design engineer or sanitarian must also certify in writing on the plan that he/she personally inspected the lot;
- s) Underground heating oil tanks will be shown and their size designated;
- t) Required inspections shall be noted. They consist of: excavation inspection, inspection of the fill material to include a sieve test, trench bottom, final construction inspection before backfilling, final grade inspection.
- u) When a Soil Absorption System is not designed for a garbage grinder it must be stated on the plan with a note that a deed restriction is required.

2. Shared septic system or alternative/innovative system designs and drainage affecting the septic system and abutting lots may be reviewed by the Board of Health consulting engineer at the expense of the applicant.

3. In new construction where shared systems are proposed or for the construction or upgrade for a system with a flow greater than 2,000 GPD, a hydrogeologic report prepared by a professional engineer experienced in this field shall be required as part of the Board of Health permit

application for the sewage disposal system. This report shall include but is not limited to estimates of the following properties of the aquifer utilized for effluent disposal: Hydraulic conductivity, reserve transitivity and porosity. This report shall be based upon actual field testing of soils underlying the disposal system, and for a minimum distance of two hundred feet surrounding the system. This testing is to include the construction of a representative section of the disposal area and the performance of a large scale field test utilizing this representative section; representative size and duration of testing to be agreed to by the design engineer and the Board of Health.

The report shall contain conclusions and recommendations pertaining to: the ability of the soils to accept the sewage effluent; the ability of the soils to transmit the effluent away from the disposal area; an estimate of the groundwater mounding under the disposal area using a model agreed to by the engineer and the Board of Health.

4. All plans for pump systems shall show the following:
 - a) The capacity of the pump chamber in gallons;
 - b) Distance from the bottom of pump off to pump on;
 - c) Size of weep hole inside pump chamber;
 - d) All calculations relative to obtaining the dosing schedule as required by Section 15.231;
 - e) No Certification of Compliance will be issued for a pump system until the Town wiring inspector has indicated that the pump wiring is in accordance with pertinent electrical codes;
 - f) All valving and piping schematics;
 - g) Manufacturer's pump specifications shall accompany the septic system plan.

General Construction Requirements for All System Components 15.221

1. The proposed grading of the lot on which the septic system is located shall divert surface water away from the dwellings so as to prevent standing water and soil saturation detrimental to the dwelling and the individual sewage disposal system and any existing or proposed septic system on adjacent lots. Conditions, which could result in, prolonged standing water within the immediate vicinity of the dwelling or individual sewage disposal system in any season is not acceptable and the Board of Health must be satisfied that such conditions will not exist. The Board of Health reserves the right to request an evaluation of the plan by the Drainage Study Committee or the Board of Health consulting engineer. The applicant shall pay fees for this work to the Board of Health. The use of interceptor drains/trenches devices so as to divert surface water runoff shall only be considered when they can be tied into an existing drainage system. Written permission from the Highway Department or appropriate authority must be submitted to the Board of Health at the time of application. Each system utilizing upgrade/sidegrade-intercepting devices requires demonstration to the Board that the devices accomplish the intentions prior to any Disposal System Construction Permit issuance.

Method: Dig a ditch, put pipe into area of soil absorption system and see if water goes down. Each system will be reviewed individually so as to determine its impact on abutting properties.

2. The lot number must be posted on the lot on a 2' x 2' placard so that it is legible from the existing or proposed street.

3. The Health Agent will conduct construction inspections in accordance with the approved plan. If additional inspections are required, additional fees for such inspection may be charged.

Placement and Construction of Tees **15.227**

All outlet tees shall be equipped with a filter approved by the Department of Environmental Protection or a filter may replace the outlet tee.

Pumping to Septic Tank **15.229**

The written approval of the Cohasset Board of Health is also required prior to implementation.

Dosing Chambers and Pumps **15.231**

1. All systems requiring pumping shall be pressure dosed in accordance with Department of Environmental Protection Guidelines.
2. Pump control panels shall have no controls on the outside of the panel with the exception of the alarm silence button that must be on the outside. Battery backups are not permitted.

Distribution Boxes **15.232**

When the proposed filling over the distribution box is greater than twelve inches, the cover shall be built up to be within six inches of the finished grade.

Reserve Area **15.248**

For new construction the area reserved for further expansion of the disposal system shall be kept open and shall not be built upon with the exception of movable structures such as tool houses and above ground swimming pools; additions to the dwelling or in-ground swimming pools may not be constructed which would preclude the reserve area from conforming with the minimum distances established in Title V.

No reserve area is required for upgrades or repairs.

Construction in Fill **15.255**

(2)(a) The retaining wall will be considered waterproof only if it is lined with a 45 mil rubberized material or equal approved by the Board of Health.

Subpart D
Inspection and Maintenance of Systems

System Inspection

15.301

All sewage disposal systems with dosing chambers and pumps shall have the pumps inspected annually by the owner or the owner's qualified agent. A written report shall be submitted to the Board of Health detailing the findings of such annual inspections.

System Inspections

15.301(12)

In the event of a proposed increase in square footage of an existing dwelling, a current Title 5 Inspection must be in effect if the increase is greater than 25% of the existing square footage, or 1000 square feet, whichever is less.

System Inspections

15.301(13)

When a dwelling is being demolished and a reconstruction is proposed which increases the square footage of the dwelling, or enlarges its footprint, and the existing septic system fails a Title 5 Inspection, an upgraded system shall be required to pass the inspection. A minimum of a two-foot separation between the groundwater and the Soil Absorption System is required with no allowance for a reduction in size of the Soil Absorption System. If the upgraded system cannot meet all Title 5 requirements, treatment of the effluent prior to disposal in the ground shall be provided.

Criteria for Inspection

15.302

1. All inspectors must be licensed by the Cohasset Board of Health and pay the associated fee designated in the Annual Fee Schedule.
2. As part of all system inspections in the Town of Cohasset the following is required:
 - a) The septic tank will be pumped to determine structural integrity and leakage;
 - b) Groundwater shall be physically determined by a soil evaluator utilizing soil-mottling criteria, unless groundwater documentation from information after 1985 is available.
3. To obtain a valid Title 5 Inspection Report it must be stamped by Cohasset Board of Health prior to issuance to the buyer or seller.

Abandonment of Systems

15.354

The owner or other persons having control of any existing building or buildings erected or converted into a dwelling to be occupied by one or more families, and whenever a public sewer system is accessible, shall cause such building to be connected to such public sewer within one hundred and eighty days unless otherwise directed by the Board of Health. Private disposal facilities shall be abandoned and filled with suitable materials. All such connections shall be subject to Cohasset Sewer

NOTICE TO CONSTRUCT/REPAIR SEPTIC SYSTEM

DATE: _____

NAME OF OWNER: _____

ADDRESS: _____

NOTIFICATION TO IMMEDIATE ABUTTERS

Application has been made for the intent to construct/repair a septic system on a parcel of land located within the confines of the Town of Cohasset:

PLOT & LOT #/ADDRESS _____

VARIANCES REQUESTED _____

LOCAL UPGRADES _____

BOARD OF HEALTH HEARING WILL BE HELD ON:

DATE: _____ **TIME:** _____

AT: *Cohasset Town Hall, 41 Highland Avenue, Cohasset, MA 02025*

SIGNATURE OF APPLICANT OR AGENT _____

DATE _____