

**TOWN OF LITTLETON, MASSACHUSETTS  
BOARD OF HEALTH REGULATIONS  
REQUIREMENTS FOR THE SUBSURFACE DISPOSAL  
OF SANITARY SEWAGE**  
*Adopted March 10, 2009*

Title 5 of the State Environmental Code (hereafter called Title 5) shall be considered the minimum standard for the design and installation of subsurface disposal systems for sanitary sewage in the Town of Littleton. In addition, the Littleton Board of Health has issued the following supplemental regulations to Title 5. The intent of these supplemental regulations is to provide for inadequacies and/or deficiencies in the requirements of Title 5 as they apply to the Town of Littleton and to protect the health and environment of the Town of Littleton. Previous regulations enacted by the Littleton Board of Health are hereby superseded.

The invalidity of any section(s) or provision(s) of these regulations shall not invalidate any other provision or section thereof.

**Regulation 1 – Permits:** All permits issued under 310 CMR of Title 5 or groundwater discharge permits must be reviewed and approved by the Littleton Board of Health before any construction can begin. Permits issued under Section 15.019, 15.020, and 15.502 or Title 5 by an agent for the Littleton Board of Health will be valid in the Town of Littleton unless the permit holder is notified by the Littleton Board of Health. Permits issued by the Littleton Board of Health will be in effect for two (2) years from the date of issue. The Board of Health may grant an extension for an additional one (1) year, allowing that all work shall be completed and a Certificate of Compliance shall be issued within three (3) years of the date of issuance of the original permit.

**Regulation 2 – Professional Review:** The Board of Health, when reviewing an application for any permit, approval, site assignment or similar matter, including, but not limited to, any proceeding considering modification, revocation or amendment of any such permit, approval, site assignment or similar matter, may determine that the assistance of outside professional expertise and/or consultants is warranted due to the size, scale or complexity of a proposed project or matter (or the issues raised thereby) or because of a project's potential impacts. The Board may require that applicants pay in advance a fee consisting of the reasonable costs incurred, or to be incurred, by the Board for the employment of outside professional expertise and /or consultants engaged by the Board to assist in the review of an application.

**Regulation 3: Reserve Area:** *Repealed in 2007*

**Regulation 4 – Groundwater Elevation:** On any lot, in the area to be used for leaching, there will be at least two deep observation holes dug. At least one deep observation hole shall be dug in each proposed leaching area (primary and reserve). Additional deep holes may be required at the discretion of the Board or its agent, Nashoba Associated Boards of Health. All observation holes for new construction, including increased in design flow, shall be dug during the months of February, March and April when the groundwater is at its maximum elevation. Groundwater elevations for upgrades to a failing system may be

based on redoximorphic features or other methods described in 310 CMR 15.103 as determined by a certified soil evaluator. Additional deep observation holes may be requested by the Littleton Board of Health or its agent to determine the character of the soil, groundwater elevation and the presence of bedrock or impervious material. Deep observation holes shall be dug to a depth of at least ten (10) feet unless this depth is unattainable because of bedrock, etc. Deep observation holes must show at least four (4) feet of consistent naturally occurring soil material below the bottom of the proposed leaching system.

**Regulation 5 – Percolation Testing:** The purpose of the percolation test is to determine the suitability of the soil at the leaching elevation and to a depth of four (4) feet below this elevation. In cases where the soil varies with depth as indicated by the deep observation holes, percolation tests at various elevations may be required by the Littleton Board of Health or its agent.

- a. At least two (2) passing percolation tests must be provided, one in the proposed primary leaching area and one in the proposed reserve area. The Littleton Board of Health or its agent, where the soil varies or where large disposal areas are required, may require additional tests. Percolation tests can be performed at any time of the year.
- b. Percolation tests as prescribed in this section shall be performed, at no expense to the Littleton Board of Health or its agent, by a Registered Professional Engineer, Registered Sanitarian or a Soil Evaluator.
- c. Percolation tests shall not be made in holes that have remained open to the atmosphere for more than three days, nor shall they be made in frozen soil. Percolation tests may be performed when the elevation of the soil to be tested is below the frozen soil layer.
- d. The slowest percolation rate obtained shall govern the leaching area requirements of the primary and reserve areas as stated in Title 5.
- e. A percolation rate over thirty (30) minutes per inch shall be considered a failing percolation test.
- f. A leaching area shall not be located closer than twenty-five (25) feet from a failing percolation test (i.e., rate greater than thirty (30) minutes per inch) until a passing percolation rate has been proven between the leaching area and failing percolation test.
- g. Sewage systems to be constructed in fill must be designed according to the percolation rate of the underlying original soil.
- h. A new percolation test(s) may be required where physical changes have occurred that may impact the percolation rate since prior testing.

**Regulation 6 – Distances:** No soil absorption system shall be installed within 100 feet of a wetland. All components of a subsurface sewage disposal system shall be at least 25 feet from a suction water supply line.

**Regulation 7 Garbage Grinders:** Garbage grinders are not allowed in conjunction with a subsurface sewage disposal system.

**Regulation 8:** An individual sewage disposal system and all connecting sewer lines shall be installed on the same lot as the facility discharging sewage into said system.

**Regulation 9 – Shared Systems:** Shared systems will only be approved if each individual lot proposed to use such system can support a subsurface sewage disposal system which can meet the requirements of Title 5 and local regulations without a variance. The area proposed which could support a subsurface sewage disposal system on each lot shall not be used for any other purpose. The Board may require financial and legal guarantees to insure system inspection, maintenance repair and replacement will occur without delay or expense to the Town of Littleton, Littleton Board of Health and/or its agent.

**Regulation 10 – Aquifer Zone:** Subsurface sewage disposal in areas within the Aquifer or Water Resource District zones, as defined under the Aquifer and Water Resource District Bylaw, Section 173-61 of the Code of the Town of Littleton shall be limited to six (6) gallons per day per 1000 square feet of lot area with the flow based on Title 5 (310 CMR 15.000). This does not include single family dwellings.

**Regulation 11 – Subdivision of Lots:** When one or more lots are subdivided from a parcel of land with a structure discharging into a subsurface disposal system, a plan showing the location for the septic tank, leaching system, well, and a leaching system expansion area must be submitted for the existing structure on the subdivided lot. The sewage disposal expansion area for the existing structure and that the lot size is large enough to permit a septic system repair or expansion. Any proposed increase in design flow may require a Title 5 inspection in accordance with 310 CMR 15.300-305.

**Regulation 12 – Capability to Support Additions and/or Alterations:** No additions or alterations to a dwelling and/or structure will be allowed until it is determined, to the satisfaction of the Board of Health, that the existing sewage disposal system is adequate, in terms of permeability of soils, groundwater, or refusal, for a proposed alteration or addition to an existing dwelling and/or structure and that the lot size is large enough to permit a septic system repair or expansion. Any proposed increase in design flow may require a Title 5 inspection in accordance with 310 CMR 15.300-305.

**Regulation 13 - The Definition of a Bedroom:** *Repealed March 10, 2009*

**Regulation 14: Design requirements-** All plans for subsurface sewage disposal systems must be drawn to a scale of one (1) inch to twenty (20) ft. System profile must be drawn to a scale of one (1) inch to twenty (20) ft. horizontal, and one (1) inch to eight (8) ft. vertical.

**Regulation 15:** All plans for subsurface sewage disposal systems must include:

**a. Survey Requirements**

1. Professional Land Surveyor or Registered Surveyor of record
2. PLS or RLS number
3. County Registry of Deeds Plan Number (book and page if appropriate)
4. The date of the Registry plan

**b. If the owner of record is other than a natural person, a copy of the Certificate of Corporation, Trust Document (s) or whatever applicable document (s) which establish legal entity must be supplied at the time of application to Nashoba Associated Boards of Health.**

- c. All applicants (if other than owner of record (s)), shall supply a signed, notarized affidavit by the owner of record (s) authorizing the applicant to act on their behalf in pursuing this application before the Littleton Board of Health or its agent.

**Regulation 16: Proposed Subdivisions:** If a proposed project contains more than four (4) lots, the Board of Health requests three (3) master site plans be submitted showing legal boundaries, topography, proposed septic system locations, well and house site locations, wetlands, surface water, drains, easements, flood plain information, Zone I, Zone II, Water Resource area and Aquifer Protection Area. This includes Zone I and Zone II of any and all abutting towns as well as Littleton.

**Regulation 17: Pump Systems**

- a. All force main sewer lines used for effluent pump and grinder pump systems shall be 160 lbs. flex or equivalent. The force main must be bedded in a minimum of 6 inches of sand.
- b. Rail systems shall be provided for all pump systems that require a greater than  $\frac{3}{4}$  horsepower (HP) pump or greater than 1500 gallon tank to allow for removal of the pump for maintenance, repair or replacement. For pump systems that are  $\frac{3}{4}$  horsepower or less and tanks that are 1500 gallons or less, a stainless steel chain or rail system shall be used.
- c. Rail systems for pumps up to 1 horsepower shall consist of  $\frac{3}{4}$ " PVC pipe with steel rebar within for support. The ends of the pipe are to be sealed to prevent effluent infiltration.
- d. Rail systems for pumps greater than 1 horsepower shall consist of 2" stainless steel pipe.
- e. Junction Box shall be located outside of the pump chamber and shall be inspected by the electrical inspector
- f. For effluent pump systems, there shall be a drain hole to allow effluent to drain back from the force main. If a drain hole is used, the drain hole shall be installed after the check valve.
- g. The maintenance of all pump systems shall be explained to the homeowner by the installer and/or builder prior to occupancy.

**Regulation 18: Non-municipally owned sewage treatment facilities**

Effective on the date of these regulations, the Littleton Board of Health will not accept applications for testing, or accept plans for review, or issue applications for permits for non-municipally owned sewage collection, treatment, or disposal systems to serve two or more lots until July 7, 2009 in order to permit orderly development and implementation of reasonable standards and procedures to govern these facilities, which will protect the long term public health. These standards and procedures will be developed to insure protection of public health through the proper specification and evaluation of siting criteria, through the demonstration of the feasibility of long term operation and maintenance planning, through the development of contractual mechanisms that insure timely replacement of failed and outdated equipment, and through the clear assignment of responsibility for nuisance, public health, or pollution impacts of the proposed facility.

Exceptions to this regulation are to include upgrades to existing non-municipally owned sewage treatment plants approved by the Board.

**Regulation 19: 100 Year Flood Zone**

**a.** No septic tank or humus/composting toilet shall be constructed in a 100 year flood zone, except a septic tank that replaces a tank in existence on the site as of March 31, 1995 that has been damaged, removed or destroyed, where placement of the tank outside of the 100 year flood zone, either horizontally or vertically, is not feasible. Where reconstruction of a system in existence on March 31, 1995 occurs or reconstruction of a building or buildings is allowed in accordance with the Wetlands Protection Act and 310 CMR 10.00, it shall be presumed to be feasible to elevate the tank if the building is elevated above the 100 year flood zone.

**b.** No soil absorption system shall be constructed in a 100-year flood zone, unless:

- (1) The system is to serve a building or buildings that were in existence on March 31, 1995 or reconstruction of such building or buildings where allowed in accordance with the wetlands protection act and 310 CMR 10.00 and
- (2) There is no increase in design flow from such building or buildings and
- (3) No connection to a public sewer or shared system is available and
- (4) The owner or applicant cannot site the system elsewhere and
- (5) The septic tank or humus/composting toilet is sighted outside of the 100-year flood zone, either horizontally or vertically and
- (6) The system achieves required separation from high groundwater elevation required by 310 CMR 15.212; and
- (7) Any portion of the soil absorption system that is within the 100 year flood zone is a leaching bed or trench system or any other system constructed in accordance with the Wetlands Protection Act and 310 CMR 10.000.

**Regulation 20: Ledge**

As a portion of the Town of Littleton relies on local well water supplies, particular attention shall be paid to the location of any ledge in relation to a proposed sewage disposal system. Decayed ledge or decayed shale, topsoil, and subsoil shall not be considered pervious material. Depth of naturally occurring pervious material above ledge must be five (5) feet; fill shall not be used to meet this requirement.

**Regulation 21:** Any facilities for the disposal or treatment of sanitary sewage located wholly or part in the Town of Littleton shall require the approval of, and a permit from, the Littleton Board of Health prior to construction.

**Regulation 22:** All applicants for Retail Food Permits or Food Service Permits required by Article 10, 105 CMR 590 000 shall be required to have the following: A Disposal Works Construction Permit issued by the local Board of Health.

**Regulation 23: Retaining Walls**

**a. Impervious Barriers** – Any impervious barrier such as, but not limited to, clay, poly-fabric sheets and block walls, and building foundations used for breakout grading

purposes around soil absorption systems for new construction are not permitted. A barrier shall be no less than ten (10) feet to a leaching system.

**b. Retaining Walls** – Retaining walls used for breakout grading purposes around soil absorption systems for new construction will not be permitted. If necessary and approved by the Littleton Board of Health, retaining walls used for upgrades of failing septic systems must be constructed of reinforced concrete or equivalent, or interlocking blocks in dimensions of 18” x 24” x 20” in compliance with 310 CMR 15.255 (2), subheadings (a) through (g). A retaining wall shall be no less than ten (10) feet to a leaching system.

**c. Abutter Notification** – Prior to approving a system incorporating a retaining wall, impervious barrier, or a variance from offset to property line (s), the applicant shall notify all immediate abutters at least ten (10) days prior to the scheduled hearing date by certified mail. **Definition of Abutter:** Legal owner of property (s) that are contiguous to the applicant’s property and directly across any right of way, street, path, etc. of the applicant’s property.

**d. Flagging** – The limit of work shall be delineated, to the satisfaction of the Littleton Board of Health or its agent, prior to any work on the facility.

**Regulation 24: Changes in Use**

**a.** When a system is used only on a seasonal basis and a proposed change is made to year round use, the Board of Health may require percolation and deep observation tests performed as stated in Regulations 4 and 5 of these regulations.

**b.** When changes are made in commercial and industrial facilities using subsurface sewage systems, the Board of Health may, if it deems necessary, require all testing as stating in Regulations 4 and 5 of these regulations.

**Regulation 25: Additions**

All applications to the Building Department which involve any change in square footage for new or existing structures must provide plans to the Board of Health. This includes, but is not limited to, the main dwelling, barns, sheds, any outbuildings, garages and decks.

**Regulation 26:** Any building sewer greater than 100 feet shall have cleanouts at fifty foot (50’) intervals.

**Regulation 27: Fill Requirements** - No portion of a fill requirement for a subsurface sewage disposal system shall be within 10 feet of a property line. This shall include the required expansion area.

**Regulation 28: Floor Drain Regulation**

See this regulation under separate cover.

**Regulation 29: Two-Compartment Septic Tank and Outlet Tee Filters**

All new septic tanks for a subsurface sewage disposal system shall be two-compartment and shall be in accordance with 310 CMR 15.224 (1) through (4). This shall include a new tank being installed as part of an upgrade; this shall not require replacing a single-compartment tank with a two-compartment if the designer of the upgrade certifies that the single-compartment tank is functioning and structurally sound. Every new design and upgrade shall require an outlet tee filter. There shall be written notice provided in a

conspicuous place near the building sewer or some other method to show that an outlet tee filter is installed to ensure that the outlet tee filter is cleaned when the septic system tank is serviced.

These regulations were adopted by the Board of Health February 24, 2009

THE LITTLETON BOARD OF HEALTH

\_\_\_\_\_ *Date*

Ted P. Doucette, Chair \_\_\_\_\_

Peter Yapp, Vice-Chair \_\_\_\_\_

Joseph Presti, Esq., Clerk \_\_\_\_\_

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