

Town of Halifax Board of Health Supplementary Rules and Regulations to the State Environmental Code: Title V, 310 CMR 15.00

Adopted: November 12, 2004.

Revised: December 01, 2004, August 19, 2015 & December 09, 2020 Effective: December 09, 2020 Amendments/Revision effective January 01, 2021.



TOWN OF HALIFAX

COMMONWEALTH OF MASSACHUSETTS

Board of Health

499 Plymouth St., Halifax, MA 02338 *Telephone (781) 293 6768 *Fax (781) 293 1738

Supplementary Rules and Regulations to the State Environmental Code: Title 5, 310 CMR 15,000

"Standard Requirements for the siting, construction, inspection, upgrade and expansion of on-site sewage treatment and disposal systems."

<u>Preamble</u> – The most important treatment of the wastewater occurs in the unsaturated zone below the leaching system. The oxygen contained in the soil is important to the microorganisms that breakdown the materials in the wastewater. It is imperative that this zone remains unsaturated and able to recharge itself with free and combined forms of oxygen.

Soils that have a finer texture and a slow percolation rate allow for longer detention of wastewater on soil particles as the effluent migrates through the underlying strata below the leaching facility. "As the wastewater infiltrates and percolates through the soil, it is treated through a variety of physical, chemical and biochemical processes and reactions" (USEPA OWTS Manual Pg. 4-2).

Combining the effects of soils with finer particles and a slow percolation rate with an adequate depth of unsaturated soil beneath an infiltration system provides the most beneficial treatment of wastewater. Septic regulations that utilize and maximize these effects will achieve better protection to the groundwater and aquifers of Halifax.

- <u>Purpose</u> In order to protect the public health and environment, there is a need to provide special 1.01 regulations for the design of septic systems in soil with slow to very slow percolation rates. These regulations are established to further protect the ground water, surface waters, drinking water, and 1.02
- Authority to Promulgate and Other Provisions
 - (1) In accordance with the provisions of 310 CMR 11.02 of the State Environmental code and under the authority of M.G.L. c. 111, s. 31, the Board of Health of the Town of Halifax hereby adopts these Supplementary Rules and Regulations to the State Environmental Code: Title 5, 310 CMR 15.000, "Standard Requirements of the siting, construction, inspection, upgrade and expansion of on-site sewage treatment and disposal systems.
 - (2) The provisions of these Supplementary Rules and Regulations shall be read together with the

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- (3) The purpose is to require precautions to avoid potential danger and to restrict conditions proven to be harmful. The precautionary principle is to protect even the threat of harm to the environment. The precautionary principle says that decision-makers have a general duty to take preventive action to avoid harm before scientific certainty has been established.
- (4) The effective date of these Supplementary Rules and Regulations is November 12, 2003.

1.03 Definitions

- (1) Open Space area of land consisting of naturally occurring vegetation, free of permanently hardened surfaces such as driveways, roadways or parking areas and restricted in use by a covenant on the deed and recorded with the deed.
- (2) Soils of Special Concern (SSC) soils with a perc rate of 31 to 60 minutes per inch.
- (3) Naturally Occurring Vegetation The vegetation which occurs on the land prior to
- (4) Mounded System Any system resulting in a finish grade 18 inches above the plane of the
- (5) Seasonable High Ground Water Table as defined in 310 CMR 15.103 (3).
- (6) All other definitions are to be found in 310 CMR 15.0 et. seq.

1.04 System Failure Criteria

(1) Purpose: To avoid contamination of ground and surface water by substandard onsite sewage disposal systems. Substandard systems present a serious threat to drinking water thus negatively affecting the public health. This contamination also poses a threat to designated wetlands affecting the environment and public health.

(2) Cesspools

- (a) Septic systems consisting of one cesspool shall be upgraded to conform to 310 CMR 15.00, the State Environmental Code, Title 5, Minimum Requirements for the Subsurface Disposal of Sanitary sewage, and the Town of Halifax requirements.
- (b) Cesspools with an overflow system within 50 feet of the Monponsett Ponds shall be upgraded to conform to 310 CMR 15.00, State Environmental Code, Title 5, Minimum Requirements for the Subsurface Disposal of Sanitary sewage, and the Town of Halifax
- (c) Cesspools with an overflow system within 50 feet of Bordering Vegetated Wetlands shall be upgraded to conform to 310 CMR 15.00, State Environmental Code, Title 5, Minimum Requirements for the Subsurface Disposal of Sanitary sewage and the Town of Halifax requirements

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- (d) All other Cesspools with overflows or leaching pits require further evaluation by the Board
- (e) This section shall apply to any septic system inspection conducted in accordance with 310 CMR 15.301 of the State Environmental Code, Title 5. This regulation shall also be strictly enforced during the building permit application process.

Soil Evaluation and Percolation Testing 1.05

- (1) All percolation testing done in accordance with 310 CMR 15.105 (6) shall require a fee and an application with the Board of Health. The percolation testing done under this section shall be witnessed by the Board of Health Agent and/or Board of Health's consultants. The fee for the consultant shall be reimbursed to the Board of Health by the applicant and is in addition to the application fee.
- (2) Any land on which a percolation test results in a perc rate from 31 to 60 minute will be considered "Soils of Special Concern" and will be subject to the design criteria spelled out in section 1.06 (7) Design Criteria for Soils of Special Concern.
- (3) Sieve Analysis in place of percolation test. When designing a septic system using a sieve analysis in place of a percolation test, a perc rate of no less than 30 minutes per inch will be
- (4) When a de-watered perc is performed, a perc rate of no less than 30 minutes per inch will be
- (5) The Engineer will be responsible for determining the number of bedrooms and whether a garbage grinder is currently in use. (Added 12/1/04)

1.06 Design Criteria

(1) Tight tanks: alarms shall be hard-wired, on a separate, dedicated circuit.

(a) An electrical permit is to be pulled.

- (b) The alarm is to be both audio and visual. (Added 12/09/20)
- (2) If the design of a septic system requires removal and replacement of unsuitable soils, the depth of the removal and replacement, to suitable pervious materials, will be noted on the plan.
- (3) Vents are required on all Soil Absorption Systems. (Added 12/09/20)
- (4) Charcoal filters must be installed on all Soil Absorption System vents.
- (5) Filters, Zabel or equivalent, must be installed in tank outlets of all systems.
- (6) Filter fabric, when called for, shall be placed over the entire Soil Absorption System, including

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- (7) Electric junction boxes must be installed <u>outside</u> of the wet well of the pump chamber.
- (8) All pump chambers for single pump systems shall be equipped with three floats which operate i.
 - pump off
 - ii. pump on
 - iii. alarm on
 - 1. These floats shall be able to be adjusted individually. (Added 12/01/04)
- (9) All new construction of multi-unit buildings, residential, commercial, or industrial, will be required to install a separate septic tank for each unit in the building. (Added 12/01/04)
- Monolithic tanks will be required if tank sits in ground water or if tank is within: (10)
 - (a) 200 feet of surface water supply or tributary to a surface water supply,
 - (b) 100 feet of bordering vegetated wetlands or wells.
- Proposed retaining walls will be designed by a Mass. Registered Professional Engineer (11)who will certify the structural integrity of said wall.
- All proposed and As-Built plans shall indicate wells within 100 feet of system. (12)
- (13)Soils of Special Concern
 - (a) Any septic systems designed on "Soils of Special Concern" must have a minimum lot size of 80,000 square feet of contiguous uplands. This information will be indicated on the proposed septic plan and As-built plan.
 - (b) A minimum of 27,000 square feet must remain open space and be protected by a deed restriction. This information will be indicated on the proposed septic plan and As-built
 - (c) The following set back requirements will apply to all septic systems built in "Soil of

	Q	Soil Absorption	
Property Line	Septic Tank	System	
Surface Water (except wetlands)	50	50	
Boldering Vegetated Wetler 1	200	200	
Surface Water Supply	150	150	
Tributary to Surface Water Supply	400	400	
Wetlands bordering Surface Water Supply or Tributary the authorized Water Supply	200	200	
or inductive filereto	200	200	
Certified Vernal Pools		-00	
Private Water Supply Well or Suction Line	100	100	
Irrigation Well	400	400	
Open, Surface or Subsurface Drains which	50	100	
Discharge to Surface Water Supplies or Tributaries thereto	200	200	
Other Open, Surface or Subsurface Drains	50	100	

(excluding foundation drains) which intercept seasonal high groundwater table Other Open, Surface or Subsurface Drains		
(CACIUMING MIND days)	25	50
Downhill Slopes	25	50
(as described in 310 CMR 15.211 (1)[4])	N/A	30

- (d) The setbacks on a Mounded Septic Systems on "Soils of Special Concern" will be measured from the toe of the slope.
- (e) A 50 foot buffer strip of naturally occurring vegetation must be left between the edge of any septic system on "Soils of Special Concern" and the property line if the system is with in 100 feet of the property line. This buffer should not be altered in any way by such activities as but not limited to mowing, cutting or trimming. This buffer zone can be included in the 27,000 of open space required.
- (f) All pressure dose and pump systems must be dosed at a rate of one application per day.
- (g) All new construction and upgrade systems shall have at least a 5 foot seperation from the bottom of the system and the seasonal high ground water level.
- (h) All septic tanks shall be monolithic.
- (i) All systems shall have a minimum of 2 inspection ports installed in the leaching area.
- (j) No leaching fields will be allowed.
- Repairs Maximum Feasible Compliance on all proposed septic system repairs. (14)
 - (a) Goal of full compliance. Wherever feasible, a failed or nonconforming system shall be brought into full compliance with 310 CMR 15, Title V and the Halifax Supplementary Rules and Regulations to the State Environmental Code: Title 5, 310 CMR 15.000.
 - (b) When full compliance with the Halifax Supplementary Rules and Regulations to the State Environmental Code: Title 5, 310 CMR 15.000 is not feasible, the Halifax Board of Health can issue variances which allow the system to be repaired but still requiring the maximum feasible compliance possible at that site.
- New Construction Maximum Feasible Compliance on all purposed septic systems. (15)
 - (a) Goal is full compliance. Wherever feasible, a proposed system shall be in full compliance with the Halfiax Supplementary Rules and Regulations to the State Environemntal Code: Title 5, 310CMR 15.000.
 - (b) When full compliance with the Halfiax Supplementary Rules and Regulations is not feasible, and when, in its opinion, the strict enforcement would do manifest injustice and does not jeopardize public health or environment, the Halifax Board of Health can issue a variances which allows the system to be installed.

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i. When variances from the Halfiax Supplementary Rules are issued, the maximum feasibile compliance with the State Environemntal Code: Title 5, 310CMR 15.000 must be met at that site.

1.07 Septic Installations

- (1) An approved copy of the proposed plan and the disposal works permit will always be on-site during construction.
- (2) There will be a 24-hour water test for tight tanks.
- (3) The following inspections, at a minimum, shall be conducted by the Health Agent or Board approved consultant during the installation of the system.
 - a. Bottom Hole Inspection.
 - b. Final Inspection.
- (4) If at the time of any inspection, the system does not comply with the design plans, there will be an additional charge for every re-inspection.
- (5) Pump Chambers will have risers with cover at grade above the pump. Duplex Pump Chambers will have a hatch that will provide access to both pumps. The cover shall have a gasket and the unit will be vented. (Added 12/01/04)
- (6) Cast Iron/Plastic Covers. (Added 12/09/20)
 - a. All covers shall be to grade and tamper resistant at inlet and outlet.
 - b. All components (pump/filter, etc....) shall be serviceable components.

1.08 As-Built Drawings and Certificates of Compliance

- (1) As-Builts shall be submitted to the Board of Health office prior to scheduling a final inspection. (Added 12/09/20)
- (2) The As-Built plan will be considered as part of the Certificate of Compliance and will include all data as shown on proposed plan and all As-Built data.
- (3) The As-Built plan will also incorporate the following paragraph:

The undersigned hereby declare that the sewage disposal system located at:

Street	Town
approved by the Halifort Power	e with the provisions of 310 CMR 15.0 (Title V) and the design plans
Permit.	e with the provisions of 310 CMR 15.0 (Title V) and the design plans of Health relating to the application for the Disposal Works Construction
Designer	Date
Installer	Date
Inspector	Date

As-builts for new or mounded systems shall include a final grading as-built. The Board of Health must have received the final grading as-built before the certificate of compliance will be given out.

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- Retaining walls used in septic systems shall be certified by a Mass. Registered Professional (5)Engineer that the wall was constructed as originally designed and approved. This certification statement shall appear on the as-built plan.
- Pressure Dosing Systems, Tight Tanks and Alternative Systems will have signed contracts which provides quarterly monitoring or other monitoring schedule, as required by law of the system by a Board of Health approved inspector before the Certificate of Compliance will be issued. (Added 12/01/04 and revised 08/19/15)

1.09 Septic System Title V Inspections

- (1) Mandate Soil Evaluations, any system installed prior to May 1995.
- (2) At the time of a Title 5 inspection risers will be added to bring the inlet and outlet covers to within 6" of grade.
 - (a) The addition of riser(s) will be noted on the state approved Title V Inspection Form.
- (3) At the time of a Title 5 Inspection a riser will be added to the D-Box to bring it within 6" of
 - (a) The addition of riser(s) will be noted on the state approved Title V Inspection Form.
- (4) At the time of a Title 5 inspection a filter (Zabel 1800 or equivalent) will be added to the tank's
 - (a) The addition of a filter will be noted on the state approved Title V Inspection Form.
- (5) The Inspection reports for systems with in 100 feet of the Monponsett Ponds or 200 feet of Silver Lake need to be further evaluated by the Board of Health or its Agent.
- (6) The inspector shall make reasonable professional efforts to locate and inspect all of the system
- (7) D-Box and/or Piping Repairs and Replacements: (Added 12/09/20)
 - (a) Any repair or replacement of a D-Box and/or piping found during a Title V Inspection, must be done by a permitted Septic Installer.
 - (b) Title V Inspectors can continue to do minor repairs such as filters and risers.
- (8) Orangeburg Piping: (Added 12/09/20)
 - (a) Back to the code book: Anything encountered not to code must be replaced.
 - (b) When a repair is needed on the D-Box and Orangeburg piping is found at a Title V Inspection:
 - i. Connecting the D-Box to the septic tank.
 - (a.) All Orangeburg piping shall be replaced with schedule 40 piping.
 - ii. Connecting the D-Box to leach area:
 - (a.) Connect D-Box to leach area as best as possible.

- (9) Pictures are Required with all Title V Inspection Reports: (Added 12/09/20)
 - i. The tank tees.
 - ii. The D-Box:
 - (a.) Before digging it up
 - (b.)Before opening it and
 - (c.) After opening it.
 - iii. Pitts/galleys:
 - (a.) Before digging it up
 - (b.)Before opening it and
 - (c.) After opening it.
 - (b) Pictures can be printed out or emailed to the Board of Health.
- (10) All seepage pits shall be located and inspected. Pits will fail an inspection when the liquid depth in a seepage pit is less than six inches from the inlet pipe invert or the remaining volume within the leaching system above the liquid depth is less than ½ of one day's design
 - (a) Risers will be added to the seepage pits at the time of the Title 5 inspection to bring
 - (b) The addition of riser(s) will be noted on the state approved Title V Inspection Form.

1.10 Septage Hauling, as defined in 15.002

- (1) The application of and/or sale of septic system additives by septage hauling companies is
- (2) Any and all Septage pumping, including from the D-box or leaching area and including water if added, will be reflected in gallons on the Septage hauling report.
- (3) All systems with in 50 feet of the Monponsett Ponds are included in the Wastewater Management District Regulations and, as such, must have a function report filled out any time the system is pumped. These function reports must be filed with the Board of Health along

1.11 Variances

- (1) When full compliance with the Halifax Supplementary Rules is not feasible, and when, in its opinion, the strict enforcement would do manifest injustice and does not jeopardize public health or the environment, the Halifax Board of Health can issue variances.
 - (a) When variances from the Halifax Supplementary Rules are issued, the maximum feasible compliance with the State Environmental Code: Title 5, 310 CMR 15.000
- (2) Process for Seeking a Variance from Halifax Supplemental
 - (a.) Every request for a variance shall be in writing, shall make reference to the specific provision of the Halifax Supplementary Rules to Title V, for which a variance is sought, and shall include a statement demonstrating compliance with 310 CMR 15.000.

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(b.) No application for a variance shall be complete until the applicant has notified all affected abutters by certified mail, or first-class mail with receipt, at his/her own expense at least ten days before the Board of Health meeting at which the variance request will be on the agenda. The notification shall reference the specific provisions of the Halifax Supplementary Rules to Title V from which a variance is sought, a statement demonstrating compliance with 310 CMR 15.000, and the date, time and place where the application will be discussed.

1.12 Penalties

- (1) Failure to comply with the provisions of this regulation will result in levy of fines of not less than \$100.00, but no more than \$1,000.00 for each violation. Each day's failure to comply with the provisions of this regulation shall constitute a separate violation.
 - a. Note: Effective 1992, under Chapter 111: Section 31 (violation of health regulation) maximum fines increased from \$100 to \$1,000.
- Severability Each provision of this regulation shall be construed as separate to the end that, if 1.13 any provision, or sentence, clause, or phrase thereof, shall be held invalid for any reason, the remainder of that section and all other sections shall continue in full force and effect.

Adopted: November 12, 2004 by the Town of Halifax Board of Health. Revised: December 01, 2004, August 19, 2015, and December 09, 2020.

Effective: December 09, 2020 amendments/revision effective January 01, 2021.

Signed on December 09, 2020

Steven MacFaun, Clerk